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Leptospira Pathogens
Chappel, R.

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Technical Info. Specialist
CM1 12C14 Tel: 308-4994

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PTO-1590 (9-90)

Hines
09/380826

-key terms

(FILE 'CAPLUS' ENTERED AT 10:55:19 ON 18 SEP 2000)
L1 146 SEA FILE=CAPLUS ABB=ON PLU=ON LEPTOSPIR?(S)PATHOGEN? OR HURSTBRIDGE OR WKID OR BUT6 OR N9569684 OR N95 69684
L2 17 SEA FILE=CAPLUS ABB=ON PLU=ON L1 AND (PIG OR PIGLET OR SWINE OR HOG OR PORCINE)

L2 ANSWER 1 OF 17 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 2000:84816 CAPLUS
DOCUMENT NUMBER: 132:136416
TITLE: Leptospiral outer membrane protein, LipL46
INVENTOR(S): Haake, David
PATENT ASSIGNEE(S): The Regents of the University of California, USA
SOURCE: PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000005240	A1	20000203	WO 1999-US16627	19990722

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1998-122210 19980723
AB An antigenic prepn. is provided contg. an outer membrane protein assocd. with **pathogenic** strains of **Leptospira**. The protein has been designated "LipL46" for "lipoprotein from Leptospira" and because the isolated polypeptide migrates to a position corresponding to a mol. wt. of 46 kDa in a denaturing polyacrylamide gel. The invention provides polynucleotides encoding LipL46 and antibodies that bind the protein which are useful in the diagnosis of leptospirosis. In addn., LipL46 can be used immunol. as a vaccine for spirochete-assocd. pathologies.

L2 ANSWER 2 OF 17 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1999:549287 CAPLUS
DOCUMENT NUMBER: 131:183866
TITLE: Leptospiral outer membrane protein, LipL32
INVENTOR(S): Haake, David A.
PATENT ASSIGNEE(S): The Regents of the University of California, USA
SOURCE: PCT Int. Appl., 56 pp.

Searcher : Shears 308-4994

CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9942478	A2	19990826	WO 1999-US4040	19990224
WO 9942478	A3	19990930		

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 9933103	A1	19990906	AU 1999-33103	19990224
PRIORITY APPLN. INFO.:			US 1998-28586	19980224
			WO 1999-US4040	19990224

AB An antigenic prepn. is provided contg. an outer membrane protein assocd. with **pathogenic** strains of **Leptospira**. The protein has been designated "LipL32" for "lipoprotein from Leptospira" and because the isolated polypeptide migrates to a position corresponding to a mol. wt. of 32 kD in a denaturing polyacrylamide gel. The invention provides polynucleotides encoding LipL32 and antibodies that bind the protein which are useful in the diagnosis of leptospirosis. In addn., LipL32 can be used immunol. as a vaccine for spirochete-assocd. pathologies.

L2 ANSWER 3 OF 17 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1998:777733 CAPLUS
TITLE: In vivo apoptosis of hepatocytes in guinea **pigs** infected with Leptospira interrogans serovar icterohaemorrhagiae
AUTHOR(S): Merien, Fabrice; Truccolo, Johann; Rougier, Yannick; Baranton, Guy; Perolat, Philippe
CORPORATE SOURCE: Leptospira Laboratory, Institut Pasteur, Noumea, 98845, New Caledonia
SOURCE: FEMS Microbiol. Lett. (1998), 169(1), 95-102
CODEN: FMLED7; ISSN: 0378-1097
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB To investigate the contribution of the previously demonstrated in vitro apoptosis to the **pathogenesis** of **leptospirosis**, guinea **pigs** were infected with

Leptospira interrogans serovar icterohaemorrhagiae strain Verdun and sequentially killed to collect target organs involved in the natural history of the disease (liver, kidneys, lungs, spleen and heart). The combination of histopathol. procedures and a specific TUNEL assay showed a significant Leptospira-induced programmed cell death of hepatocytes with a peak at 48 h post inoculation. Hepatocyte nuclei showed morphol. changes including fragmented and condensed nuclei. This phenomenon occurred early in the course of the disease at a time where infecting leptospires were present at a low d. between the liver parenchyma cells.

L2 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1998:621133 CAPLUS
DOCUMENT NUMBER: 129:242431
TITLE: New isolates of Leptospira, antigens derived from them and vaccines
INVENTOR(S): Chappel, Roderick J.
PATENT ASSIGNEE(S): Agriculture Victoria Services Pty. Ltd., Australia; Pig Research and Development Corp.
SOURCE: PCT Int. Appl., 95 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9840099	A1	19980917	WO 1998-AU145	19980306
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9860837	A1	19980929	AU 1998-60837	19980306
PRIORITY APPLN. INFO.:			AU 1997-5494	19970307
			WO 1998-AU145	19980306

AB Novel isolates of the spirochaete Leptospira and antigens derived from them that can be used in the diagnosis and prophylaxis of disease are described. More particularly, the present invention is directed to a new serovar of Leptospira designated as serovar **hurstbridge** or serogroup **Hurstbridge** or L. fainei. The bacteria were isolated from **pigs** at slaughterhouses in Australia. The new isolate is a member of the **pathogenic** grouping of **Leptospira** but is distinct from known

serovars. It is most similar to the lyme serovar of L. inadai.

L2 ANSWER 5 OF 17 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1998:620335 CAPLUS
DOCUMENT NUMBER: 129:341501
TITLE: Leptospira fainei sp. nov., isolated from **pigs** in Australia
AUTHOR(S): Perolat, P.; Chappel, R. J.; Adler, B.; Baranton, G.; Bulach, D. M.; Billinghurst, M. L.; Letocart, M.; Merien, F.; Serrano, M. S.
CORPORATE SOURCE: Leptospira Laboratory, Institut Pasteur, Noumea, New Caledonia
SOURCE: Int. J. Syst. Bacteriol. (1998), 48(3), 851-858
CODEN: IJSBA8; ISSN: 0020-7713
PUBLISHER: Society for General Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB **Pathogenic leptospires** can be causative agents of reproductive problems in **pigs**. Cultures of uteri and kidneys from two **pig** herds in New South Wales and Victoria (Australia) yielded five strains identified as Leptospira on morphol. and cultural grounds. Phenotypic characteristics (growth at 13 and 30.degree.C, growth in the presence of 8-azaguanine) were intermediate between those of **pathogenic** and saprophytic **leptospires**. No cross-agglutination was obsd. with ref. antisera representing the 24 pathogenic serogroups and the main saprophytic ones. Antiserum against one of the strains did not agglutinate ref. strains representative of any serogroup. This provided evidence of a new serovar, designated **hurstbridge**. Genomic characterization of the five strains was achieved using five mol. approaches. Mapped restriction site polymorphisms in the rrs (16S rRNA) gene were not related to those of any ref. strains. Arbitrarily primed PCR fingerprints suggested clonality of the five strains. The strains all showed an identical and unique PFGE profile. PCR, using primers specific for the rrs gene of **pathogenic leptospires**, amplified corresponding sequences from the strains. DNA-DNA hybridization (and reciprocal expts.) using the S1 nuclease/TCA method was performed between one of the strains and the ref. strains of Leptospira species. The homol. ranged from 0 to 36% (the latter being with Leptospira inadai) thus satisfying the criterion of a new species, Leptospira fainei (type strain BUT 6T). Phylogenetic anal. of 16S rRNA sequences showed that L. fainei and L. inadai formed a clade sep. from the previously recognized "saprophyte" and "pathogen" clades.

L2 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1997:98029 CAPLUS
DOCUMENT NUMBER: 126:170347
TITLE: Invasion of Vero cells and induction of

apoptosis in macrophages by **pathogenic** **Leptospira** interrogans are correlated with virulence

AUTHOR(S): Merien, Fabrice; Baranton, Guy; Perolat, Philippe

CORPORATE SOURCE: Lab. Leptospires, Inst. Pasteur, Noumea, 98845, New Caledonia

SOURCE: Infect. Immun. (1997), 65(2), 729-738
CODEN: INFIBR; ISSN: 0019-9567

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Interactions of virulent Leptospira interrogans serovar icterohaemorrhagiae strain Verdun with Vero cells (African green monkey kidney fibroblasts) and a monocyte-macrophage-like cell line (J774A.1) were assayed by a double-fluorescence immunolabelling method. Infectivity profiles were investigated according to (i) the duration of contact between leptospires and eukaryotic cells and (ii) the no. of in vitro passages after primary isolation from lethally infected guinea **pigs**. Comparative expts. were conducted with the corresponding high-passage avirulent variant and the saprophytic leptospire Leptospira biflexa Patoc I. In Vero cells, virulent leptospires were quickly internalized from 20 min postinfection, whereas avirulent and saprophytic strains remained extracellularly located. In addn., the virulent strain demonstrated an ability to actively invade the monocyte-macrophage-like J774A.1 cells during the early stages of contact and to induce programmed cell death, as shown by the detection of oligonucleosomes in a quant. sandwich enzyme immunoassay. In both cellular systems, subsequent in vitro subcultures demonstrated a progressive decrease of the invasiveness, pointing out the necessity of using primo cultures of Leptospira for virulence studies. Invasiveness of virulent leptospires was significantly inhibited with monodansylcadaverine, indicating that internalization was dependent on receptor-mediated endocytosis. Invasion of epithelial cells and induction of apoptosis in macrophages may be related to the **pathogenicity** of **Leptospira**, and both could contribute to its ability to survive in the host and to escape from the immune response.

L2 ANSWER 7 OF 17 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1995:460352 CAPLUS

DOCUMENT NUMBER: 122:209407

TITLE: Comparative study of the enzyme activities of Borrelia burgdorferi and other non-intestinal and intestinal spirochetes

AUTHOR(S): Dettori, G.; Grillo, R.; Cattani, P.; Calderaro, A.; Chezzi, C.; Milner, J.; Truelove, K.; Sellwood, R.

CORPORATE SOURCE: Institute Microbiology, Medical Faculty, Parma, Italy
SOURCE: Microbiologica (1995), 18(1), 13-26
CODEN: MIBLDR; ISSN: 0391-5352
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Comparative anal. of the enzymic profiles of 58 spirochaetal isolates clearly differentiated borrelias from leptospires, serpulinas and a treponeme. Strains of both Borrelia burgdorferi and Borrelia hermsii characteristically produced significant amts. of leucine arylamidase. This enzyme activity was not unique to borrelias but was also detected among **pathogenic** and non-**pathogenic leptospira** serovars. This fact, however, did not hamper a correct differentiation of borrelias from these spirochaetes, because leptospires possessed unique enzyme profiles. The API ZYM system could not differentiate the human strains of B. burgdorferi from those isolated from ticks, or from B. hermsii. Treponema phagedenis could be differentiated from all the other spirochaetes by the prodn. of .alpha.-fucosidase. These results indicate that human and animal intestinal spirochaetes have many common enzyme activities. All strains produced reactions of max. intensity when tested for the presence of .beta.-galactosidase activity. However, the avian strains lacked esterase (C4) which was present in human and **swine** intestinal spirochaetes. All strains of Serpulina hyodysenteriae, and Serpulina innocens as well as the human intestinal spirochaete strain HRM-14 showed .alpha.- and .beta.-glucosidase activity. Both enzyme activities were absent or insignificant in most other intestinal spirochaetes examd.: 25 different human strains, non-pathogenic **swine** strain M1 and the avian strain 4742. However, **swine** strain LL3 and avian strain 1380 showed some .beta.-glucosidase activity.

L2 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1995:101551 CAPLUS
DOCUMENT NUMBER: 123:1994
TITLE: Rapid and specific detection of **pathogenic Leptospira** species by amplification of ribosomal sequences
AUTHOR(S): Wagenaar, Jaap A.; Segers, Ruud P. A. M.; Van der Zeijst, Bernard A. M.
CORPORATE SOURCE: School of Veterinary Medicine, Utrecht University, Utrecht, 3508 TD, Neth.
SOURCE: Mol. Biotechnol. (1994), 2(1), 1-14
CODEN: MLBOEO; ISSN: 1073-6085
DOCUMENT TYPE: Journal
LANGUAGE: English

AB We have developed an assay for the detection of **pathogenic Leptospira** that is based on the polymerase chain reaction. With the combination of agarose gel electrophoresis and blotting,

pathogenic Leptospira can be discriminated specifically from nonpathogenic **Leptospira** and other bacterial species. This method, based on the amplification of 16S rRNA sequences, is able to detect 10 leptospiral cells/mL in cattle urine samples and 100 leptospiral cells/mL in **pig** urine samples. Using this assay leptospires were detected in urine samples from cattle that were exptl. infected with Leptospira interrogans serovar hardjo type hardjobovis.

L2 ANSWER 9 OF 17 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1994:265415 CAPLUS
DOCUMENT NUMBER: 120:265415
TITLE: Outer membrane proteins of three **pathogenic Leptospira** species
AUTHOR(S): Nicholson, Vivian M.; Prescott, John F.
CORPORATE SOURCE: Dep. Vet. Microbiol. Immunol., Univ. Guelph, Guelph, ON, Can.
SOURCE: Vet. Microbiol. (1993), 36(1-2), 123-38
CODEN: VMICDQ; ISSN: 0378-1135
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The outer membrane proteins of seven ref. strains of **pathogenic Leptospira** (L. alstoni serovar grippotyphosa, L. borgpetersenii serovar hardjo, and L. interrogans serovars autumnalis, Bratislava, canicola, icterohemorrhagiae, and pomona) were investigated to identify common surface-exposed outer membrane proteins. Sodium dodecyl sulfate-polyacrylamide gel electrophoresis of sodium-N-lauroylsarcosinate-insol. outer membrane-enriched fractions of the ref. serovars and two field isolates of serovars hardjo and pomona revealed six common protein bands with approx. mol. masses of 77, 66, 42, 35.5, 24, and 18 kDa. At times the 35.5 kDa endoflagellar band resolved into two distinct bands, 35.5 kDa and 34 kDa. Immunoblotting of the same fractions using rabbit leptospiral antibodies showed six bands to be common (66, 59.5, 44, 42, 35.5, and 18 kDa). The 44 kDa band stained poorly with Coomassie blue but prominently by immunoblotting. Four ref. strains (serovars Bratislava, canicola, icterohemorrhagiae, pomona), and two field isolates of serovar pomona and one of serovar Bratislava were grown in low iron media to which the iron chelators 2,2'-dipyridyl or ethylenediaminehydroxyphenylacetic acid were added. No iron-dependent expression of outer membrane proteins was obsd. The only difference obsd. between the outer membrane proteins when ref. serovars of canicola or pomona were grown in dialysis bags in the peritoneum of **swine** or in vitro was the loss of the 77 kDa band from in vivo grown organisms. Treatment of whole leptospires with proteinase K did not remove the 77, 66, 59.5, or 42 kDa protein; these proteins may not be surface expressed or are inaccessible to the proteinase K. The 44 kDa band could not be evaluated by this method and the 18 kDa band was proteinase K

resistant.

L2 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1989:629953 CAPLUS
DOCUMENT NUMBER: 111:229953
TITLE: Skin reaction to lipids from avirulent strain Shibaura of Leptospira interrogans serovar copenhageni
AUTHOR(S): Arimitsu, Yoshiko; Moribayashi, Atsuko; Goto, Norihisa
CORPORATE SOURCE: Dep. Appl. Immunol., Natl. Inst. Health, Tokyo, 141, Japan
SOURCE: Can. J. Microbiol. (1989), 35(11), 1009-14
CODEN: CJMIAZ; ISSN: 0008-4166
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Sonically disrupted cells from avirulent strain Shibaura of L. interrogans serovar copenhageni induced a skin reaction characterization by infiltration of polymorphonuclear leukocytes (PMN) assocd. with some edema in guinea **pigs**. To det. the substance inducing infiltration of PMN, lipids of avirulent strain Shibaura were extd. with chloroform-methanol-water after washing with acetone. The lipids comprised 28% of the dry wt. of the cell. When the lipids were further sepd. into water-methanol and chloroform fractions, the most severe PMN infiltration of all samples was seen in the skin inoculated with ext. recovered from the chloroform fraction. Neutral and polar lipids were detected after TLC of the chloroform ext. Neutral lipids were detected as free fatty acids (FFA). Fatty acids contained in polar lipids were mainly palmitic acid and palmitoleic acid, whereas FFA comprised 66.5% oleic acid. Skin reactions consisting of marked edema with mild infiltration of PMN were elicited by FFA. There was no obvious difference between a com. available FFA mixt. and the FFA from avirulent strain Shibaura. These observations suggest that FFA may play some role in the **pathogenesis** of **leptospirosis**.

L2 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1985:572278 CAPLUS
DOCUMENT NUMBER: 103:172278
TITLE: Active immunization of gilts against gonadotropin-releasing hormone: effects on secretion of gonadotropins, reproductive function, and responses to agonists of gonadotropin-releasing hormone
AUTHOR(S): Esbenshade, K. L.; Britt, J. H.
CORPORATE SOURCE: Dep. Anim. Sci., North Carolina State Univ., Raleigh, NC, 27695-7621, USA
SOURCE: Biol. Reprod. (1985), 33(3), 569-77

CODEN: BIREBV; ISSN: 0006-3363
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Sexually mature gilts were actively immunized against gonadotropin-releasing hormone (GnRH) [9034-40-6] by conjugating GnRH to bovine serum albumin, emulsifying the conjugate in Freud's adjuvant, and giving the emulsion as a primary immunization at Week 0 and as booster immunizations at Weeks 10 and 14. Antibody titers were evident by 2 wk after primary immunization and increased markedly in response to booster immunizations. Active immunization against GnRH caused gonadotropins to decline to nondetectable levels, gonadal steroids to decline to basal levels, and the gilts to become acyclic. Prolactin [9002-62-4] concns. in peripheral circulation were unaffected by immunization against GnRH. The endocrine status of the hypothalamic-pituitary-ovarian axis was examd. by giving GnRH and 2 agonists to GnRH and by ovariectomy. An i.v. injection of 100 .mu.g GnRH caused release of LH [9002-67-9] and FSH [9002-68-0] in control animals, but not in gilts immunized against GnRH. In contrast, administration of 5 .mu.g D-[Ala6,des-Gly-NH210]-LH-RH ethylamide [52435-06-0] or 5 .mu.g D-[Ser-t-**But6**,des-Gly-NH210]-LH-RH ethylamide [57982-77-1] resulted in immediate release of LH and FSH in both control and GnRH-immunized gilts. Circulating concns. of LH and FSH increased after ovariectomy in the controls, but remained at nondetectable levels in gilts immunized against GnRH. Prolactin concns. did not change in response to ovariectomy. Apparently, cyclic gilts can be actively immunized against GnRH and this causes cessation of estrous cycles and inhibits secretion of LH, FSH, and gonadal steroids. Also, the functional integrity of the pituitary remained intact in animals actively immunized against GnRH, since gilts immunized against GnRH released both LH and FSH in response to 2 agonists of GnRH and prolactin secretion was unaffected by the immunization.

L2 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1985:60478 CAPLUS
DOCUMENT NUMBER: 102:60478
TITLE: Characterization of monoclonal antibodies to Treponema pallidum
AUTHOR(S): Lukehart, Sheila A.; Tam, Milton R.; Hom, John; Baker-Zander, Sharon A.; Holmes, King K.; Nowinski, Robert C.
CORPORATE SOURCE: Sch. Med., Univ. Washington, Seattle, WA, 98195, USA
SOURCE: J. Immunol. (1985), 134(1), 585-92
CODEN: JOIMA3; ISSN: 0022-1767
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Thirteen hybrid cell lines which produce mouse monoclonal antibodies

to T. pallidum, the causative agent of syphilis, were established. All of the monoclonal antibodies react with T. palidum, Nichols strain, in ELISA and in immunofluorescence assays, but do not react with normal rabbit testicular tissue in the ELISA. Two of these antibodies reacted with the nonpathogenic treponemes T. phagedenis, biotype Reiter, T. refringens (Noguchi strain), T. vincentii, and T. denticola (strains 11 and W), as well as with Borrelia recurrentis, **Leptospira** interrogans, serogroup Canicola, and the **swine pathogen** T. hyodysenteriae. The remaining 11 antibodies react with 4 recently isolated strains of T. pallidum, but with none of the related nonpathogens nor with Borrelia or Leptospira. Thus, these monoclonal antibodies may identify antigenic determinants that are specific either for T. pallidum alone or for those treponemes which are pathogenic for humans. The mol. specificities of 6 of the 13 antibodies were detd. by Western blotting.

L2 ANSWER 13 OF 17 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1981:491618 CAPLUS
DOCUMENT NUMBER: 95:91618
TITLE: Studies on the effect of antibiotic substances on leptospires and their cultivation from material with a high bacterial count
AUTHOR(S): Schoenberg, A.
CORPORATE SOURCE: Inst. Vet. Med., Fed. Health Off., Berlin, Fed. Rep. Ger.
SOURCE: Zentralbl. Bakteriol., Mikrobiol. Hyg., Abt. 1, Orig. A (1981), 249(3), 400-6
CODEN: ZBMPDI
DOCUMENT TYPE: Journal
LANGUAGE: English
AB **Leptospira** Species are difficult to isolate from sperm specimens because rapid growth of the contaminant flora will kill the **pathogen**. The resistance of 5 Leptospira strains to different antibiotics was examd. with a view to an inhibition of such contaminant growth. Neomycin [1404-04-2], vancomycin [1404-90-6], nalidixic acid [389-08-2], streptomycin [57-92-1], chloramphenicol [56-75-7] all had an adverse influence on the multiplication phase, with vancomycin and nalidixic acid having the least effect. Streptomycin and chloramphenicol were most inhibitory. Thus, a combination of vancomycin and nalidixic acid was used for the recovery of leptospires from **porcine** sperm. To inhibit growth of Pseudomonas aeruginosa, polymyxin B was added. The strongly inhibitory action of polymyxin B on leptospiral growth could be eliminated by subculturing in a medium free from inhibitory substances after 2 days.

L2 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1977:419961 CAPLUS

DOCUMENT NUMBER: 87:19961
TITLE: The **pathogenesis** of **leptospirosis**. II. Jaundice in experimental **leptospirosis** in guinea **pigs**
AUTHOR(S): Higgins, R.; Cousineau, G.
CORPORATE SOURCE: Fac. Med. Vet., Univ. Montreal, St.-Hyacinthe, Que., Can.
SOURCE: Can. J. Comp. Med. (1977), 41(2), 182-7
CODEN: CJCMAV
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Different mechanisms responsible for the appearance of jaundice in leptospirosis caused by Leptospira icterohaemorrhagiae in guinea **pigs** were discussed. Hepatocellular damage was demonstrated with the presence to a lesser extent of intrahepatic biliary obstruction. A massive destruction of extravascular red blood cells liberated by the hemorrhagic diathesis, appeared to be the main cause in the genesis of jaundice. The latter was inhibited following the neutralization of the reticuloendothelial system of guinea pgs by .gamma.-irradn. before the infection.

L2 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1977:419960 CAPLUS
DOCUMENT NUMBER: 87:19960
TITLE: The **pathogenesis** of **leptospirosis**. I. Hemorrhages in experimental **leptospirosis** in guinea **pigs**
AUTHOR(S): Higgins, R.; Cousineau, G.
CORPORATE SOURCE: Fac. Med. Vet., Univ. Montreal, St.-Hyacinthe, Que., Can.
SOURCE: Can. J. Comp. Med. (1977), 41(2), 174-81
CODEN: CJCMAV
DOCUMENT TYPE: Journal
LANGUAGE: English

AB In exptl. infections of guinea **pigs** with a virulent strain of Leptospira icterohaemorrhagiae widespread hemorrhages were obsd. Thrombocytopenia, prolongation of prothrombin, thrombin, partial thromboplastin and coagultion times, decrease of plasma fibrinogen, factor V, factor VIII, and the presence of fibrinogen degrdn. products were demonstrated. Treatment of infected guinea **pigs** with heparin prolonged life for 2-3 days. The histol. observations revealed that the main lesion was a severe injury of the vasculature, mainly arteries, arterioles, and capillaries. Most of the endothelial cells were affected or destroyed and the muscular fibers of arteries and arterioles were injured. With Martius-Scarlet-Blue, Weigert, or Picro-Mallory stains it was demonstrated that the organization seen in the vessels was not all

made of fibrin. Thus the hemorrhages obsd. in exptl. leptospirosis in guinea **pigs** are probably due to disseminated intravascular coagulation.

L2 ANSWER 16 OF 17 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1970:527057 CAPLUS
DOCUMENT NUMBER: 73:127057
TITLE: Action of leptosipral lipases on purified serum lipoproteins
AUTHOR(S): Chorvath, Branko; Fried, Melvin
CORPORATE SOURCE: Ustav Epidemiol., Komeskeho Univ., Bratislava, Czech.
SOURCE: Folia Microbiol. (Prague) (1970), 15(4), 303-8
CODEN: FOMIAZ
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Exocellular lipases of a **pathogenic** and a saprophytic strain of **Leptospira** readily hydrolyzed low-d. **hog** serum lipoproteins but failed to hydrolyze high-d. lipoproteins. Partly purified enzyme prepns. by EtOH fractionation showed optimum activity at pH 8.5, 0.4M NaCl, 0.001M CaCl2, and 0.010M Na deoxycholate.

L2 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1970:51431 CAPLUS
DOCUMENT NUMBER: 72:51431
TITLE: Activity of antiinflammatory steroidal and nonsteroidal compounds in some experimental infections. IV. Activity of certain nonsteroidal antiinflammatory agents as compared with that of prednisone in leptospirosis of the guinea **pig**
AUTHOR(S): Manganaro, M.; Pacelli, P.
CORPORATE SOURCE: Univ. Studi, Rome, Italy
SOURCE: Inflammation, Proc. Int. Symp. (1968), Meeting Date 1967, 74-81. Editor(s): Silvestrini, B. Excerpta Med. Found.: Amsterdam, Neth.
CODEN: 21YOAV
DOCUMENT TYPE: Conference
LANGUAGE: English
AB Male guinea **pigs** (av. wt. 250 g) were inoculated i.p. with a high dose of **pathogen** (**leptospiro** "Monica"). The effects of nonsteroid antiinflammatory drugs, including naphthipramide , were compared with untreated and steroid treated animals. Temp. curves, mortality rate, and mean survival time showed no statistical significance for any treatment over that of controls. These drugs also showed no infection enhancing effect as was previously re ported for cortisone.

(FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO, CABA, AGRICOLA, VETU, VETB' ENTERED AT 11:04:30 ON 18 SEP 2000)

L16 750 SEA ABB=ON PLU=ON LEPTOSPIRA(10A)(PATHOGEN## OR HURSTBRIDGE OR WKID OR BUT6 OR N9569684 OR N95 69684)

L17 54 SEA ABB=ON PLU=ON L16(S)(PIG OR PIGLET OR SWINE OR HOG OR PORCINE)

L18 32 DUP REM L17 (22 DUPLICATES REMOVED)

L18 ANSWER 1 OF 32 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

ACCESSION NUMBER: 1999-550754 [46] WPIDS
DOC. NO. CPI: C1999-160593
TITLE: New pathogen polypeptide useful as vaccines for inducing an immune response to a pathogenic spirochete, e.g. Treponema.
DERWENT CLASS: B04 D16
INVENTOR(S): HAAKE, D A
PATENT ASSIGNEE(S): (REGC) UNIV CALIFORNIA
COUNTRY COUNT: 82
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9942478	A2	19990826	(199946)*	EN	54
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW					
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW					
AU 9933103	A	19990906	(200003)		
ZA 9901443	A	19991229	(200006)		55

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9942478	A2	WO 1999-US4040	19990224
AU 9933103	A	AU 1999-33103	19990224
ZA 9901443	A	ZA 1999-1443	19990223

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9933103	A	Based on	WO 9942478

PRIORITY APPLN. INFO: US 1998-28586 19980224
AN 1999-550754 [46] WPIDS

Searcher : Shears 308-4994

AB WO 9942478 A UPAB: 19991110
NOVELTY - A substantially purified LipL32 Leptospira sp outer membrane polypeptide (I) is new . having a fully defined 272 amino acid sequence given in the specification.

DETAILED DESCRIPTION - (I) has a 272 amino acid (aa) sequence (given in the specification).

INDEPENDENT CLAIMS are also included for the following:

(1) an isolated polynucleotide (II) encoding (I);

(2) an isolated polynucleotide (III) selected from a 819 bp sequence (given in the specification), optionally where T is U, its complements and fragments of at least 15 bases that hybridize to (II);

(3) an expression vector comprising (II);

(4) preparation of (I);

(5) an antibody that binds (I);

(6) identifying a compound that binds (I) comprising incubating compound with (I) and measuring binding;

(7) detecting pathogenic spirochete comprising contacting sample with a reagent that binds a spirochete-specific cell component, and detecting binding;

(8) a kit for detection of (I) comprising carrier means containing at least one container with one containing a (I) binding agent;

(9) a kit for detection of (II) comprising at least one container comprising one with a polynucleotide that hybridizes to (II); and

(10) a kit for detection of antibody to (I) comprising a carrier means containing at least one container comprising one with (I).

ACTIVITY - Antipathogenic.

MECHANISM OF ACTION - None given.

USE - (I) and the antibody are useful as vaccines for inducing an immune response to a **pathogenic** spirochete, preferably Treponema, Borrelia or **Leptospira** (claimed). (II) is useful for detecting **pathogenic** spirochete in human, **swine**, **porcine**, feline, canine, equine, murine, cervine, caprine, lupine, leporidine and bovine, preferably Treponema, Borrelia or Leptospira (claimed). (I) is useful for detecting antibodies (claimed).

ADVANTAGE - Current vaccines have short-term immunity, as they include disrupted Leptospira sp outer membranes, unlike the new polypeptides.

Dwg.0/3

L18 ANSWER 2 OF 32 CABA COPYRIGHT 2000 CABI
ACCESSION NUMBER: 2000:112977 CABA
DOCUMENT NUMBER: 20002215210
TITLE: Seroprevalence of Leptospiral antibodies in commercial pigs in the Mashonaland East

Province of Zimbabwe

AUTHOR: Mavenyengwa, M.; Keller, E.; Munyombwe, T.
CORPORATE SOURCE: Central Veterinary Diagnostics and Research Laboratory, P.O. Box CY551, Causeway, Harare, Zimbabwe.

SOURCE: Zimbabwe Veterinary Journal, (1999) Vol. 30, No. 3/4, pp. 85-91. 11 ref.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A random sample of 941 sera from 25 non-vaccinated commercial **pig** herds distributed in Mashonaland East Province was examined for Leptospira interrogans antibodies using the microscopic agglutination test. Sera were initially screened against live antigens representing 17 serovars of **pathogenic** **Leptospira** at a 1:50 dilution. The overall prevalence of exposure was 33.9% with a 95% confidence interval of 30.88-37.02. Antibodies against serovar bratislava were widely distributed amongst the farms surveyed. Other antibodies detected included those against serovars cynopteri, australis, autumnalis, icterohaemorrhagiae, grippotyphosa, canicola, javanica and pomona. These results indicate that some serovar bratislava might be a contributing factor to low reproductive performance in some **swine** herds in Zimbabwe, and that the vaccine in current use, which contains other serovars, might not protect against it.

L18 ANSWER 3 OF 32 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1997-202243 [18] WPIDS
DOC. NO. NON-CPI: N1997-167116
DOC. NO. CPI: C1997-064736
TITLE: Cassette for vaccine antigen expression in plant cells - to produce transgenic plants that provide protection against mucosal diseases when fed to animals.
DERWENT CLASS: B04 C06 D16 P13
INVENTOR(S): ALL, B P; HOWARD, J A
PATENT ASSIGNEE(S): (HOWA-I) HOWARD J A
COUNTRY COUNT: 21
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9710347	A1	19970320	(199718)*	EN	50
RW: AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE					
W: AU CA JP NZ					
AU 9669762	A	19970401	(199730)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE

WO 9710347	A1	WO 1996-US14662	19960913
AU 9669762	A	AU 1996-69762	19960913

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9669762	A	Based on	WO 9710347

PRIORITY APPLN. INFO: US 1995-529006 19950915
AN 1997-202243 [18] WPIDS
AB WO 9710347 A UPAB: 19970502
Novel expression cassette (EC) for expressing a vaccine antigen in a plant cell, comprises a DNA sequence encoding at least 1 vaccine antigen, providing protection against mucosal diseases, operably linked to transcriptional and translation control regions functional in the plant cell. Also claimed are: (1) transformed plant cell comprising the EC; (2) transgenic plant comprising the EC stably integrated into its genome; (3) transgenic plant seed comprising the EC stably integrated into its genome; and (4) animal feed composition comprising the transgenic plant or seed.

USE - The transgenic plant or seed, as part of a claimed immunogenic composition, can be used to protect animals, e.g. **pigs**, cows, sheep, goats, dogs or cats, against mucosal diseases, e.g. Bovine Respiratory Disease Complex (BRDC), bovine and **porcine** rotavirus and coronavirus, bacterial pathogens (e.g. Pasteurella and Haemophilus spp.), dairy cattle mastitis and abortion-inducing **pathogens** (e.g. **Leptospira** spp. and Campylobacter foetus). The vaccine antigen can also be extracted and purified for other uses, e.g. diagnostic assays.

ADVANTAGE - The immunogenic compositions can effectively immunise animals via the oral root, and provide for infection prevention, symptom amelioration, mortality decrease and secretory IgA response and/or neutralising antibody induction.
Dwg.0/7

L18 ANSWER 4 OF 32 MEDLINE DUPLICATE 1
ACCESSION NUMBER: 2000147541 MEDLINE
DOCUMENT NUMBER: 20147541
TITLE: Immunogenecity of expressed protein p68 from recombinant plasmid rpDJt in L. interrogans serovar lai.
AUTHOR: Jiang N; Dai B; Li S; Zhao H; Fang Z; Wu W; Ye D; Liu J; Song S; Yang Y; Zhang Y; Liu F; Tu Y; Yang H; Huang Z; Liang L; Hu L; Zhao M
CORPORATE SOURCE: Research Group, West China University of Medical Sciences, Chengdu.
SOURCE: HUA-HSI I KO TA HSUEH HSUEH PAO [JOURNAL OF WEST

CHINA UNIVERSITY OF MEDICAL SCIENCES], (1997 Jun) 28 (2) 122-7.
Journal code: GEB. ISSN: 0257-7712.
PUB. COUNTRY: China
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Chinese
ENTRY MONTH: 200006
ENTRY WEEK: 20000601

AB There are two types of infection caused by **pathogenic** microorganisms, intracellular infection and intercellular infection. Infection of **pathogenic leptospira** is an intercellular infection. The immunological reaction of host to intercellular infection is unique. The potential immunogen of an expressed protein should meet three criteria: it can be degraded (by antigen-present cells in the host); it should have antigenic epitope which can be recognized by specific antibodies and have at least one epitope that can be recognized by an MHC II protein and T cell receptor. In this study we report the cloning of an L. interrogans protein in plasmid rpDJt and the immunogencity of the expressed protein derivative. A genomic library of L. interrogans serovar lai strain 017 was constructed with the plasmid vector pUC18. Recombinant plasmids, designated pDJH2 and pDJ8 were screened from the bank. EcoRI-inserted fragment of 1. 9 kb recombinant DNA of pDJH2 was ligated into T7 RNA polymerase/promoter vectors (pT7-7). Then they were transformed into E. coli JM109 (De3), one of subclones, designated rpDJt was achieved. SDS-PAGE showed that the molecular weights of expression proteins were 68 kd and 23 kd respectively, designated p68 and p23. Purifying and isolating p68 and p23, we separated them from SDS-Polyacrylamide gels by using Side-Strip method. After fragmenting and electroeluting, p68 and p23 were injected into guinea **pigs** and rabbits. An extremely strong immune response to p68 was obtained since an anti-p68 antibody response could be detected to a dilution 1:524,288 (guinea **pigs**) and 1:262,144 (rabbits) by ELISA while anti-P23 antibody being 1:1024 (the same to guinea **pigs** and rabbits). The results of improved MTT and conA 3HTdR transformation methods showed the activities and proliferation of Th-cells were increased in guinea **pigs** after p68 immunization (IL-6, 83.25 IU/ml, IL-2, 28.75 IU/ml; RPI, 2.04, SI, 65.62%) Thlymphocyte existed in two subclasses, the Th1- and Th2-cells. A major role of Th2-cells is to "help" B-cells differentiate, replicate, and secrete antibody. The properties of these interactions explain why p68 makes good antigen and p23 does not. The antigens responsible for eliciting the production of protective antibodies are not known; however, several outer membrane proteins on L. interrogans are candidates for vaccine. Our results suggest that expresion protein p68 from recombinants (rpDJt) may be a candidate for gene engineered subunit vaccine for Leptospirosis.

L18 ANSWER 5 OF 32 CABA COPYRIGHT 2000 CABI
ACCESSION NUMBER: 97:154188 CABA
DOCUMENT NUMBER: 972216940
TITLE: Anti-Leptospira agglutinins in the blood serum of domestic animals in the State of Bahia, Brazil during the period 1994-1996. II. Aglutininas anti-Leptospira em hemosoro de animais domesticos no Estado da Bahia, 1994/1996 - II
AUTHOR: Caldas, E. M.; Viegas, S. A. R. A.; Viegas, E. A.; Reis, R. S.; De Aquino Viegas, S. A. R.; De Aquino Viegas, E.
CORPORATE SOURCE: Escola de Medicina Veterinaria, UFBA, Bahia, Brazil.
SOURCE: Arquivos da Escola de Medicina Veterinaria da Universidade Federal da Bahia, (1996) Vol. 18, No. 1, pp. 268-280. 22 ref.
ISSN: 0100-2597
DOCUMENT TYPE: Journal
LANGUAGE: Portuguese
SUMMARY LANGUAGE: English
AB In a follow-up to a previous study, a total of 1641 serum samples (from 253 cattle, 101 horses, 111 **pigs**, 916 dogs, 9 cats, 105 sheep and 146 goats) were examined during the period January 1994-July 1996. The serum samples were tested by the microscopic haemagglutination test using a battery of 21 **Leptospira** antigens (16 from **pathogenic** and 5 from non-**pathogenic** serovars). Prevalence of antibodies was 82.2% in cattle, 67.3% in horses, 71.4% in **pigs**, 59.5% in dogs, 33.3% in cats, 63.8% in sheep and 70.5% in goats.

L18 ANSWER 6 OF 32 MEDLINE DUPLICATE 2
ACCESSION NUMBER: 96402740 MEDLINE
DOCUMENT NUMBER: 96402740
TITLE: Acute outbreak of porcine parvovirus infection in Mozambique.
AUTHOR: Rivera E; Concha C; Braganca M; Gunnarsson A; Karlsson K A
CORPORATE SOURCE: National Veterinary Institute, Uppsala, Sweden.
SOURCE: TROPICAL ANIMAL HEALTH AND PRODUCTION, (1995 Nov) 27 (4) 217-20.
Journal code: WG2. ISSN: 0049-4747.
PUB. COUNTRY: SCOTLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199702
ENTRY WEEK: 19970204
AB Investigations were made to determine the causal agent of an acute

outbreak of abortions recorded in a **swine** herd in Mozambique. Isolation of **porcine** parvovirus and demonstration of its specific antibodies accomplished by using enzyme-linked immunosorbent assay, haemagglutination inhibition and immunofluorescent tests, indicated that **porcine** parvovirus was the causal agent of the abortions. Other **pathogenic** agents causing reproductive failure, e.g. pseudorabies virus, **Leptospira** or Brucella species, were ruled out because investigations of these agents proved to be negative.

L18 ANSWER 7 OF 32 MEDLINE DUPLICATE 3
ACCESSION NUMBER: 95280752 MEDLINE
DOCUMENT NUMBER: 95280752
TITLE: Comparative study of the enzyme activities of Borrelia burgdorferi and other non-intestinal and intestinal spirochaetes.
AUTHOR: Dettori G; Grillo R; Cattani P; Calderaro A; Chezzi C; Milner J; Truelove K; Sellwood R
CORPORATE SOURCE: Institute of Microbiology, Medical Faculty, Parma, Italy.
SOURCE: NEW MICROBIOLOGICA, (1995 Jan) 18 (1) 13-26. Journal code: CGC. ISSN: 1121-7138.
PUB. COUNTRY: Italy
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199509
AB Comparative analysis of the enzymatic profiles of 58 spirochaetal isolates clearly differentiated borrelias from leptospires, serpulinas and a treponeme. Strains of both Borrelia burgdorferi and Borrelia hermsii characteristically produced significant amounts of leucine arylamidase. This enzyme activity was not unique to borrelias but was also detected amongst **pathogenic** and non-**pathogenic leptospira** serovars. This fact, however, did not hamper a correct differentiation of borrelias from these spirochaetes, because leptospires possessed unique enzyme profiles. The API ZYM system could not differentiate the human strains of B. burgdorferi from those isolated from ticks, or from B. hermsii. Treponema phagedenis could be differentiated from all the other spirochaetes by the production of alpha-fucosidase. Our results confirm and extend previous studies indicating that human and animal intestinal spirochaetes have many common enzyme activities. All strains produced reactions of maximum intensity when tested for the presence of beta-galactosidase activity. However the avian strains lacked esterase (C4) which was present in human and **swine** intestinal spirochaetes. All strains of Serpulina hyodysenteriae, and Serpulina innocens as well as the human intestinal spirochaete strain HRM-14 showed alpha and beta glucosidase activity. Both enzyme activities were absent or

insignificant in most other intestinal spirochaetes examined: 25 different human strains, non-pathogenic **swine** strain M1 and the avian strain 4742. However, **swine** strain LL3 and avian strain 1380 showed some beta-glucosidase activity.

L18 ANSWER 8 OF 32 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1994-332823 [41] WPIDS
DOC. NO. CPI: C1994-151343
TITLE: New Leptospira outer membrane protein and related nucleic acid - vectors, transformed cells, antibodies etc., useful in vaccines, and for diagnosis or immuno therapy.
DERWENT CLASS: B04 C06 D16
INVENTOR(S): BLANCO, D R; CHAMPION, C I; HAAKE, D A; LOVETT, M A; MILLER, J N
PATENT ASSIGNEE(S): (REGC) UNIV CALIFORNIA
COUNTRY COUNT: 20
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9422475	A1	19941013	(199441)*	EN	62
RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE					
W: AU CA JP					
AU 9341003	A	19941024	(199505)		
EP 693936	A1	19960131	(199609)	EN	
R: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE					
JP 08508980	W	19960924	(199704)		51
AU 686561	B	19980212	(199814)#		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9422475	A1	WO 1993-US2963	19930331
AU 9341003	A	AU 1993-41003	19930331
		WO 1993-US2963	19930331
EP 693936	A1	EP 1993-910558	19930331
		WO 1993-US2963	19930331
JP 08508980	W	WO 1993-US2963	19930331
		JP 1994-522001	19930331
AU 686561	B	AU 1993-41003	19930331

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9341003	A	Based on	WO 9422475
EP 693936	A1	Based on	WO 9422475

Searcher : Shears 308-4994

JP 08508980 W Based on WO 9422475
AU 686561 B Previous Publ. AU 9341003
Based on WO 9422475

PRIORITY APPLN. INFO: AU 1993-41003 19930331; WO 1993-US2963 19930331
AN 1994-332823 [41] WPIDS
AB WO 9422475 A UPAB: 19941206
Polypeptide (I) having the amino acid sequence of OmpL1 (Leptospira outer membrane protein) is new. The 320 amino acid sequence of (I) from L. alstoni is reproduced together with its genomic DNA sequence. Also new are (1) nucleic acid (II), RNA or DNA, encoding (I); (2) recombinant expression vectors contg. (II); (3) host cells transformed with these vectors; and (4) antibodies (Ab) that bind OmpL1.

USE/ADVANTAGE - (I) Is useful in vaccines to protect against Leptospira, e.g. in humans, **pigs** and cattle. Opt. labelled (I), (II) and Ab can be used in standard immunoassay/hybridisation steps to detect pathogenic heptospira (this includes in vivo imaging) or associated antibodies, for diagnosis or monitoring. Ab can also be used for immunotherapy, opt. coupled to a therapeutic agent. Since the gene for (I) is present in all **pathogenic** (but not in non-**pathogenic**) **Leptospira** examined, it should be able to provide protection against, or detection of, a wide range of serovars. Vaccinating doses are 10-1000 (pref. 50-300) microg, given by injection, orally or by nasopharyngeal or dermal absorption, with usual adjuvants. Antibody doses are 0.1-2000 (pref. 0.1-500)mg/kg. by injection, opt. together with effector cells. Dwg.0/3

L18 ANSWER 9 OF 32 MEDLINE DUPLICATE 4
ACCESSION NUMBER: 95171241 MEDLINE
DOCUMENT NUMBER: 95171241
TITLE: Rapid and specific detection of pathogenic Leptospira species by amplification of ribosomal sequences.
AUTHOR: Wagenaar J A; Segers R P; Van der Zeijst B A
CORPORATE SOURCE: Department of Bacteriology, School of Veterinary Medicine, Utrecht University, The Netherlands..
SOURCE: MOLECULAR BIOTECHNOLOGY, (1994 Aug) 2 (1) 1-14. Journal code: B97. ISSN: 1073-6085.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-S76598; GENBANK-S76602; GENBANK-S76603; GENBANK-S76605; GENBANK-S76607; GENBANK-S76609
ENTRY MONTH: 199506
AB We have developed an assay for the detection of **pathogenic** **Leptospira** that is based on the polymerase chain reaction.

With the combination of agarose gel electrophoresis and blotting, **pathogenic Leptospira** can be discriminated specifically from nonpathogenic **Leptospira** and other bacterial species. This method, based on the amplification of 16S ribosomal RNA sequences, is able to detect 10 leptospiral cells/mL in cattle urine samples and 100 leptospiral cells/mL in **pig** urine samples. Using this assay leptospires were detected in urine samples from cattle that were experimentally infected with Leptospira interrogans serovar hardjo type hardjobovis.

L18 ANSWER 10 OF 32 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1994-143013 [17] WPIDS
DOC. NO. CPI: C1994-065696
TITLE: Synthesis of infection allergen to detect Leptospirosis in pigs - by combining several cultivated Leptospira serotype, disintegrating with ultrasound, autoclaving prod. and sepg. allergen by centrifugation.
DERWENT CLASS: B04 C07 D16
INVENTOR(S): KIRPICHENOK, V A
PATENT ASSIGNEE(S): (VITE-R) VITEB VETERINARY INST
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
SU 1796190	A1	19930223	(199417)*		2

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
SU 1796190	A1	SU 1990-4917634	19901217

PRIORITY APPLN. INFO: SU 1990-4917634 19901217
AN 1994-143013 [17] WPIDS
AB SU 1796190 A UPAB: 19940613
The allergen is produced as follows. The Leptospira serotypes, Pomona, Tarassovi, Icterohaemmorrhagiae, Canicola, Sexahoebing and Grippotyphosa are cultivated separately in bottles contg. water-serum nutrient medium at pH 7.2-7.4. After incubation at 28-30 deg.C for 7-10 days, selected cultures are amalgamated in one vessel, then subjected to ultrasound (20 kHz, 100 W) for 20 min. The disintegration prod. is then autoclaved at 1 atmos. for 20 min. and centrifuged at 2500 rev/min. for 30 min. Finally, the supernatant is filtered.

USE/ADVANTAGE - The process is used to obtain allergens for carrying out intradermal allergic reactions in animals. Specific

delayed hypersensitivity to Leptospira pathogens can be determined. The quality of the allergen is enhanced.

In an example, prepn. specificity was evaluated using non-immune laboratory **pigs**, infected intraperitoneally with virulent **Leptospira** cultures and having **pathogen** antibodies in titre of 1:100 or over. Allergen injected subcutaneously produced a positive reaction in the form of an intumescent area measuring 2-2.5 x 2-2.5 cm2.
Dwg.0/0

L18 ANSWER 11 OF 32 MEDLINE DUPLICATE 5
ACCESSION NUMBER: 94055026 MEDLINE
DOCUMENT NUMBER: 94055026
TITLE: Outer membrane proteins of three pathogenic Leptospira species.
AUTHOR: Nicholson V M; Prescott J F
CORPORATE SOURCE: Department of Veterinary Microbiology and Immunology, University of Guelph, Ont., Canada.
SOURCE: VETERINARY MICROBIOLOGY, (1993 Jul) 36 (1-2) 123-38. Journal code: XBW. ISSN: 0378-1135.
PUB. COUNTRY: Netherlands
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199402

AB The outer membrane proteins of seven reference strains of **pathogenic Leptospira** (L. alstoni serovar grippotyphosa, L. borgpetersenii serovar hardjo, and L. interrogans serovars autumnalis, bratislava, canicola, icterohaemorrhagiae, and pomona) were investigated to identify common surface-exposed outer membrane proteins. Sodium dodecyl sulfate-polyacrylamide gel electrophoresis of sodium-N-lauroylsarcosinate-insoluble outer membrane enriched fractions of the reference serovars and two field isolates of serovars hardjo and pomona revealed six common protein bands with approximate molecular masses of 77, 66, 42, 35.5, 24, and 18 kDa. At times the 35.5 kDa endoflagellar band resolved into two distinct bands, 35.5 kDa and 34 kDa. Immunoblotting of the same fractions using rabbit leptospiral antibodies showed six bands to be common (66, 59.5, 44, 42, 35.5, and 18 kDa). The 44 kDa band stained poorly with Coomassie blue but prominently by immunoblotting. Four reference strains (serovars bratislava, canicola, icterohaemorrhagiae, pomona), and two field isolates of serovar pomona and one of serovar bratislava were grown in low iron media to which the iron chelators 2,2'-dipyridyl or ethylenediaminehydroxyphenylacetic acid were added. No iron-dependent expression of outer membrane proteins was observed. The only difference observed between the outer membrane proteins when reference serovars of canicola or pomona were grown in dialysis bags in the peritoneum of **swine** or in vitro was the loss

of the 77 kDa band from in vivo grown organisms. Treatment of whole leptospires with proteinase K did not remove the 77, 66, 59.5, or 42 kDa protein; these proteins may not be surface expressed or are inaccessible to the proteinase K. The 44 kDa band could not be evaluated by this method and the 18 kDa band was proteinase K resistant.

L18 ANSWER 12 OF 32 MEDLINE DUPLICATE 6
ACCESSION NUMBER: 93117537 MEDLINE
DOCUMENT NUMBER: 93117537
TITLE: Extrachromosomal elements of spirochetes.
AUTHOR: Bergstrom S; Garon C F; Barbour A G; MacDougall J
CORPORATE SOURCE: Department of Microbiology, University of Umea, Sweden..
SOURCE: RESEARCH IN MICROBIOLOGY, (1992 Jul-Aug) 143 (6) 623-8. Ref: 50
Journal code: R6F. ISSN: 0923-2508.
PUB. COUNTRY: France
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199304
AB The spirochetes include some important **pathogenic** bacteria, Treponema, Borrelia and **Leptospira**. The pathogeneses of these spirochetes are very diverse. In an attempt to learn more about the virulence factors among the spirochetes, their genetic organization and capacity have been studied. Structural analysis of the genome in Borrelia has shown that the genome is composed of one linear maxi-chromosome with additional linear minichromosomes as well as several supercoiled circular plasmids. Moreover, the molecular analysis of the terminal ends of one of the linear minichromosomes has revealed that this unique replicon has sequence similarities with poxviruses and particularly the viral agent of African **swine** fever. The presence of nucleic-acid-containing vesicles and its possible role in mediating DNA transfer between borreliae is an additional, very interesting feature of these organisms. Treponema does not contain any linear DNA, chromosomal or extrachromosomal, however molecular characterization of a 2.6-kb plasmid of Treponema denticola has been performed with the aim of establishing cloning vehicles to study the virulence properties of the genus Treponema.

L18 ANSWER 13 OF 32 CABA COPYRIGHT 2000 CABI
ACCESSION NUMBER: 89:134418 CABA
DOCUMENT NUMBER: 892296995
TITLE: A regional serological survey of wild boar in the German Democratic Republic
Searcher : Shears 308-4994

Ergebnisse flachendeckender serologischer Untersuchungen beim Schwarzwild (Sus scrofa) in einem Bezirk der DDR

AUTHOR: Dedek, J.; Loepelmann, H.; Kokles, R.
CORPORATE SOURCE: Inst. Veterinarwesen, Petershagen Allee 1, DDR-2200 Greifswald, German Democratic Republic.

SOURCE: (1989) pp. 309-314. 26 ref.
Publisher: Akademie-Verlag. Berlin
Meeting Info.: Erkrankungen der Zootiere. Verhandlungsbericht des 31. Internationalen Symposiums uber die Erkrankungen der Zoo- und Wildtiere, Dortmund 1989.
ISBN: 3-05-500651-8
PUB. COUNTRY: German Democratic Republic
DOCUMENT TYPE: Miscellaneous
LANGUAGE: German
SUMMARY LANGUAGE: English; French; Russian

AB Blood samples were obtained from about 5000 wild boar shot within an area of 500 000 ha. Antibodies to the following **pathogens** were present: Brucella (261 animals), Yersinia enterocolitica (46), **Leptospira** (332), Chlamydia (29), **porcine** coronavirus (14), **swine** fever (330), influenzavirus type A (11), **porcine** parvovirus (226), Aujeszky's disease virus (13), Toxoplasma (12). No antibodies to Coxiella, aphthovirus, alphavirus, flavivirus or Trichinella were detected.

L18 ANSWER 14 OF 32 MEDLINE DUPLICATE 7

ACCESSION NUMBER: 89011865 MEDLINE
DOCUMENT NUMBER: 89011865

TITLE: Reaction of monoclonal antibodies with species specific determinants in Leptospira interrogans outer envelope.

AUTHOR: Jost B H; Adler B; Faine S
CORPORATE SOURCE: Department of Microbiology, Monash University, Clayton, Victoria, Australia..

SOURCE: JOURNAL OF MEDICAL MICROBIOLOGY, (1988 Sep) 27 (1) 51-7.
Journal code: J2N. ISSN: 0022-2615.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198901

AB A set of 24 monoclonal antibodies (MABs) was produced against an outer envelope preparation from Leptospira interrogans serovar copenhageni. The MABs reacted in enzyme immunoassay with species-specific determinants of an antigen in the leptospiral outer envelope (OE) of **pathogenic** but not of saprophytic species

of **Leptospira**. The MABs did not agglutinate whole leptospires, nor could they opsonise homologous leptospires for phagocytosis by mouse macrophages or protect new-born guinea-**pigs** against lethal infection. The MABs reacted by Western blotting with a 35 x 10(3)-mol-wt band in OE separated on SDS-polyacrylamide gels, and also reacted with other bands to a lesser extent. The determinants to which the MABs were directed were localised in the leptospiral OE by immunogold labelling techniques.

L18 ANSWER 15 OF 32 CABA COPYRIGHT 2000 CABI
ACCESSION NUMBER: 88:19467 CABA
DOCUMENT NUMBER: 882276699
TITLE: Detection of leptospires in biological fluids using DNA hybridisation
AUTHOR: Millar, B. D.; Chappel, R. J.; Adler, B.
CORPORATE SOURCE: Dep. Agric. Rural Affairs, Regional Vet. Lab., Bendigo, Vic. 3550, Australia.
SOURCE: Veterinary Microbiology, (1987) Vol. 15, No. 1/2, pp. 71-78. 15 ref.
ISSN: 0378-1135
DOCUMENT TYPE: Journal
LANGUAGE: English
AB DNA extracted from Leptospira interrogans serovar pomona was labelled with 32P by nick translation and used as a genomic probe to detect leptospiral DNA. The sensitivity of detection in a 10- mu l spot on nylon membranes was 160 pg of leptospiral DNA or 1.1x103 leptospires and assays with nylon membranes were somewhat more sensitive than assays with nitrocellulose membranes. The probe reacted with the **pathogenic Leptospira** interrogans hardjo and tarassovi serovars, but not with other genera of bacteria. To detect leptospires in body fluids, these were treated to free leptospiral DNA and then concentrated on membranes using a Bio-Dot apparatus. Neither serum nor urine interfered with the assay system. The DNA of leptospires added to **pig** urine was stable for at least 2 h at room temperature and for at least 20 h at -20 deg C.

L18 ANSWER 16 OF 32 MEDLINE DUPLICATE 8
ACCESSION NUMBER: 85056324 MEDLINE
DOCUMENT NUMBER: 85056324
TITLE: Characterization of monoclonal antibodies to Treponema pallidum.
AUTHOR: Lukehart S A; Tam M R; Hom J; Baker-Zander S A; Holmes K K; Nowinski R C
CONTRACT NUMBER: AI 12192 (NIAID)
SOURCE: JOURNAL OF IMMUNOLOGY, (1985 Jan) 134 (1) 585-92.
Journal code: IFB. ISSN: 0022-1767.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
Searcher : Shears 308-4994

LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals; Cancer Journals
ENTRY MONTH: 198503
AB Thirteen hybrid cell lines which produce mouse monoclonal antibodies to Treponema pallidum, the causative agent of syphilis, have been established. All of the monoclonal antibodies react with T. pallidum, Nichols strain, in ELISA and in immunofluorescence assays, but do not react with normal rabbit testicular tissue in the ELISA. Two of these antibodies were demonstrated to react with the nonpathogenic treponemes T. phagedenis, biotype Reiter, T. refringens (Noguchi strain), T. vincentii, and T. denticola (strains 11 and W), as well as with Borrelia recurrentis, **Leptospira** interrogans, serogroup Canicola, and the **swine pathogen** T. hyodysenteriae. The remaining 11 antibodies react with four recently isolated strains of T. pallidum, but with none of the related nonpathogens nor with Borrelia or Leptospira. Thus, our results to date indicate that these monoclonal antibodies may identify antigenic determinants that are specific either for T. pallidum alone or for those treponemes which are pathogenic for humans. The molecular specificities of six of the 13 antibodies were determined by Western blotting. We anticipate potential usefulness of these antibodies in the investigation of the antigenic structure of T. pallidum, the taxonomic study of the pathogenic and nonpathogenic treponemes, and in the diagnosis of syphilis.

L18 ANSWER 17 OF 32 VETU COPYRIGHT 2000 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1984-62907 VETU M T S
TITLE: Principles for Use of Chemotherapy on Swine. (Prinzipien des Chemotherapeutikaeinsatzes beim Schwein)
AUTHOR: Trolldenier H; Kielstein P; Koehler B; Lusky K; Lutter K; Klaehn J
LOCATION: Jena, Potsdam, Dummerstorf; Rostock, DDR
SOURCE: Monatsh.Veterinaermed. (39, No. 15, 505-10, 1984) 2 Tab. 16 Ref
CODEN: MVMZA8
AVAIL. OF DOC.: 1040 Berlin, Hannoversche Strasse 27, East Germany.
LANGUAGE: German
DOCUMENT TYPE: Journal
FIELD AVAIL.: AB; LA; CT
AN 1984-62907 VETU M T S
AB The use of chemotherapeutic substances in pigs is discussed with reference to bacterial resistance, mode of action, drug combinations, side-effects and withdrawal times.
ABEX The development of resistance to penicillin, streptomycin, oxytetracycline, chloramphenicol, neomycin, sulfonamide and nitrofuran is considered with reference to streptococci, staphylococci, Pasteurella, Clostr. perfringens, Corynebact.,

Haemophilus, Bordetella, Erysipelothrix insidiosa, E.coli, Salm.typhimurium, S. chollerae suis and s. c. suis var. kunzendorf. Data are reproduced on the sensitivity of Mycoplasma, **Leptospira**, Borrelia, rickettsias, Bac.anthracis, Listeria, Klebs. and other **pathogens** to benzylpenicillin, sulfonamide + trimethoprim, turimycin, tylosin and most of the drugs mentioned above. Bacteriostatic action is considered in relation to the capacity of the **pig**'s defense mechanisms to destroy pathogens. The use of drug combinations, sulfonamide + trimethoprim and penicilin + streptomycin, is examined. The attainment of MICs at sites of action is discussed with reference to S. typhimurium and E.coli. Factors determining the route of administration of a drug are explained. Side-effects of broad-spectrum antibiotics may include the multiplication of yeasts and Ps.sp. Excessive doses of furazolidone or sulfonamides in **piglets** can cause CNS disorders. Procaine benzylpenicillin in aqueous suspension at 10,000 IU/kg body weight produces nausea and vomiting. S.c. injection of drugs at the base of the ear is preferable to i.m. administration in the femoral muscles of the hind leg, which can be damaging. Waiting times between drug administration and slaughter are discussed.

L18 ANSWER 18 OF 32 MEDLINE
ACCESSION NUMBER: 81278025 MEDLINE
DOCUMENT NUMBER: 81278025
TITLE: Studies on the effect of antibiotic substances on leptospires and their cultivation from material with a high bacterial count.
AUTHOR: Schonberg A
SOURCE: ZENTRALBLATT FUR BAKTERIOLOGIE. 1. ABT. ORIGINALE. A: MEDIZINISCHE MIKROBIOLOGIE, INFEKTIONSKRANKHEITEN UND PARASITIOLOGIE, (1981 Aug) 249 (3) 400-6.
Journal code: Y5P. ISSN: 0172-5599.
PUB. COUNTRY: GERMANY, WEST: Germany, Federal Republic of
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198112

AB Leptospira species are difficult to isolate from sperm specimens because rapid growth of the contaminant flora will kill the **pathogen**. The resistance of 5 **Leptospira** strains to 5 different antibiotics was examined with a view to an inhibition of such contaminant growth. Neomycin (10, 20, 30 mg/l), vancomycin (5, 8, 10 mg/l), nalidixic acid (50, 75, 100 mg/l), streptomycin (5, 8, 10 mg/l) and chloramphenicol (5, 10, 20 mg/l) were added separately to Korthof's culture medium containing rabbit serum. The comparative growth rates of the leptospires were evaluated. Against the control medium, all 5 antibiotics were found to have an adverse influence on the multiplication phase. In conformity with literature

data, vancomycin (10 mg/l) and nalidixic acid (50 mg/l) were found to have the lowest effect. In the cases of streptomycin and chloramphenicol, there was a high reduction of the leptospiral count and even a complete lack of multiplication. A combination of vancomycin (10 mg21) and nalidixic acid (50 mg/l) was used for the recovery of leptospires from **porcine** sperm. To inhibit a growth of Ps. aeruginosa, 5000 U/l polymyxin B were added. The strongly inhibitory action of polymyxin B on leptospiral growth could be eliminated by subculturing in a medium free from inhibitory substances after 2 days.

L18 ANSWER 19 OF 32 BIOSIS COPYRIGHT 2000 BIOSIS
ACCESSION NUMBER: 1982:158308 BIOSIS
DOCUMENT NUMBER: BA73:18292
TITLE: STUDIES ON THE EFFECT OF ANTIBIOTIC SUBSTANCES ON LEPTOSPIRES AND THEIR CULTIVATION FROM MATERIAL WITH A HIGH BACTERIAL COUNT.
AUTHOR(S): SCHOENBERG A
CORPORATE SOURCE: BUNDESGESUNDHEITSAMT, POSTFACH 33013, D-1000 BERLIN 33.
SOURCE: ZENTRALBL BAKTERIOL MIKROBIOL HYG I ABT ORIG A MED MIKROBIOL INFEKTIONSKR PARASITOL, (1981) 249 (3), 400-406.
CODEN: ZBMPDI. ISSN: 0174-3031.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB Leptospira spp. are difficult to isolate from sperm specimens because rapid growth of the contaminant flora will kill the **pathogen**. The resistance of 5 **Leptospira** strains to 5 different antibiotics was examined with a view to inhibiting such contaminant growth. Neomycin (10, 20, 30 mg/l), vancomycin (5, 8, 10 mg/l), nalidixic acid (50, 75, 100 mg/l), streptomycin (5, 8, 10 mg/l) and chloramphenicol (5, 10, 20 mg/l) were added separately to Korthof's culture medium containing rabbit serum. The comparative growth rates of the leptospires were evaluated. Against the control medium, all 5 antibiotics had an adverse influence on the multiplication phase. Vancomycin (10 mg/l) and nalidixic acid (50 mg/l) had the lowest effect. In the cases of streptomycin and chloramphenicol, there was a high reduction of the leptospiral count and even a complete lack of multiplication. A combination of vancomycin (10 mg/l) and nalidixic acid (50 mg/l) was used for the recovery of leptospires from **porcine** sperm. To inhibit growth of Pseudomonas aeruginosa, 5000 U/l polymyxin B were added. The strongly inhibitory action of polymyxin B on leptospiral growth could be eliminated by subculturing in a medium free from inhibitory substances after 2 days.

L18 ANSWER 20 OF 32 MEDLINE DUPLICATE 9
ACCESSION NUMBER: 81118157 MEDLINE

DOCUMENT NUMBER: 81118157
TITLE: The occurrence and significance to animal health of Leptospira, Mycobacterium, Escherichia coli, Brucella abortus and Bacillus anthracis in sewage and sewage sludges.
AUTHOR: Jones P W; Rennison L M; Matthews P R; Collins P; Brown A
SOURCE: JOURNAL OF HYGIENE, (1981 Feb) 86 (1) 129-37.
Journal code: IEF. ISSN: 0022-1724.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198106

AB Samples of sewage, sewage sludge and sewage effluent from one or more of four sewage treatment plants were examined for the presence of Leptospira, Mycobacterium, Escherichia coli, Brucella abortus and Bacillus anthracis. Brucella abortus and Bacillus anthracis were not isolated. Eleven strains of E. coli potentially enteropathogenic for calves or **piglets**, eight **pathogenic** strains of Mycobacterium and one patho;genic **Leptospira** strain were isolated from 101, 189 and 189 samples respectively. Sewage sludge is no;t considered to play a major part in the epidemiology of disease caused by these organisms.

L18 ANSWER 21 OF 32 BIOSIS COPYRIGHT 2000 BIOSIS
ACCESSION NUMBER: 1980:249027 BIOSIS
DOCUMENT NUMBER: BA70:41523
TITLE: A NEW SERO GROUP OF PATHOGENIC LEPTOSPIRA MANHAO.
AUTHOR(S): INST MIL DEP LOGIST KUNMING MIL AREA; NATL INST CONTROL PHARM BIOL PROD MINIST HEALTH (CHINA)
CORPORATE SOURCE: KUNMING, CHINA.
SOURCE: ACTA MICROBIOL SIN, (1979) 19 (3), 230-234.
CODEN: WSHPA8. ISSN: 0001-6209.
FILE SEGMENT: BA; OLD
LANGUAGE: English

AB A new serogroup of **pathogenic Leptospira** Manhao is presented. **Leptospira** serogroup Manhao has no positive cross reactions with serogroups Javanica, Celledoni, Canicola, Cynopteri, Australis, Autumnalis, Pomona, Grippotyphosa, Hebdomadis, Bataviae, Tarassovi, Shermani and Panama. It has only 1 common antigenic factor with serotype alexi, but no cross reaction with other serotypes in serogroup pyrogenes. It has an unstable low titer cross reaction with individual serotypes of serogroup Icterophaemorrhagiae, Ballum. Based on the abovementioned results, **Leptospira** serogroup Manhao is assigned as a new serogroup of **pathogenic Leptospira**. Except for 1 strain from **pig** kidney, all strains of Leptospira serogroup Manhao were isolated from patients only. No strain was obtained from

common host animals.

L18 ANSWER 22 OF 32 MEDLINE DUPLICATE 10
ACCESSION NUMBER: 80061428 MEDLINE
DOCUMENT NUMBER: 80061428
TITLE: Antibodies against Leptospira biflexa serotypes patoc and sao paulo in pigs: possible occurrence and importance for the intracutaneous test for leptospirosis.
AUTHOR: Schonberg A
SOURCE: ZENTRALBLATT FUR BAKTERIOLOGIE, PARASITENKUNDE, INFEKTIONSKRANKHEITEN UND HYGIENE. ERSTE ABTEILUNG ORIGINALE. REIHE A: MEDIZINISCHE MIKROBIOLOGIE UND PARASITOLOGIE, (1979 Jun) 244 (1) 45-9.
Journal code: Y52. ISSN: 0300-9688.
PUB. COUNTRY: GERMANY, WEST: Germany, Federal Republic of
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198003
AB Leptospirin for the diagnosis of leptospirosis by an intracutaneous test contains antigenic material from 5 **pathogenic** **Leptospira** serotypes (10). During experiments with rabbits and **pigs**, leptospirin was injected into 6 **pigs** which had been infected artificially with apathogenic Leptospira biflexa serotypes patoc and sao paulo. Three out of the 6 **pigs** showed a positive leptospirin reaction (11). This interfering reaction in animals having been infected with apathogenic L. biflexa was the reason to investigate the occurrence of biflexa antibodies in **pigs** from different areas in Germany by the microscopic agglutination. None of the 854 **pigs** showed biflexa antibodies producing a 50% agglutination at a serum dilution of 1:100. If at all, **pigs** may become infected naturally by L. biflexa; this apparently seems to be a rare incident. An impairment of the diagnostic value of leptospirin by L. biflexa antibodies can be excluded.

L18 ANSWER 23 OF 32 BIOSIS COPYRIGHT 2000 BIOSIS
ACCESSION NUMBER: 1979:209607 BIOSIS
DOCUMENT NUMBER: BA68:12111
TITLE: LEPTOSPIROSIS ECOLOGY EPIDEMIOLOGY AND PROPHYLACTIC MEASURES.
AUTHOR(S): PARNAS J
CORPORATE SOURCE: SERUM LAB., STATE VET. INST., COPENHAGEN, DEN.
SOURCE: ANN SCLAVO, (1978 (RECD 1979)) 20 (1), 71-105.
CODEN: ASCLAZ. ISSN: 0003-472X.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB Leptospirosis represents an important problem in tropical and

subtropical veterinary and medical hygiene, especially in Asia and Africa. The geoepidemiology, geoecology, systematics and epizootiology of the **pathogenic Leptospirae** [**Leptospira** icterohaemorhagiae, L. javanica, L. celledoni, L. canicola, L. ballum, L. pyrogenes, L. cynopteri, L. autumnalis, L. pomona, L. australis, L. grippotyphosa, L. hebdomadis, L. bataviae, L. tarassovi, L. panama and L. semaranga] are considered. The epidemiology of leptospirosis in horses, **pigs**, cattle, dogs and man is explained. Preventive measures, including rodent vector control and vaccination, are enumerated.

L18 ANSWER 24 OF 32 BIOSIS COPYRIGHT 2000 BIOSIS
ACCESSION NUMBER: 1978:25232 BIOSIS
DOCUMENT NUMBER: BR14:25232
TITLE: CYTO **PATHOGENIC** PROPERTIES OF **LEPTOSPIRA** IN EMBRYO KIDNEY CELL CULTURES OF COWS **PIGS** AND GUINEA-**PIGS**.
AUTHOR(S): REICHUK E A; SOLOSHENKO I Z; CHERNUKHA YU G
SOURCE: Zh. Mikrobiol., Epidemiol. Immunobiol., (1977) 3, 144-145.
CODEN: ZMEIAV. ISSN: 0372-9311.
DOCUMENT TYPE: Short Communication
FILE SEGMENT: BR; OLD
LANGUAGE: Unavailable

L18 ANSWER 25 OF 32 CABA COPYRIGHT 2000 CABI
ACCESSION NUMBER: 77:113507 CABA
DOCUMENT NUMBER: 772295912
TITLE: Cytopathic action of leptospires on cultures of embryonic kidney cells from cattle, swine and guinea-pigs
Tsitopatogennye svoistva leptospir v kulturakh kletok pochek embrionov
AUTHOR: Reichuk, E. A.; Soloshenko, I. Z.; Chernukha, Yu. G.
CORPORATE SOURCE: Gamaleya Institut Epidemiologii, Moscow, USSR.
SOURCE: Zhurnal Mikrobiologii Epidemiologii i Immunobiologii, (1977) No. 3, pp. 144-145.
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB A comparative study was made of the behaviour of 12 different strains of **pathogenic Leptospira** in primary trypsinized cultures of embryo kidney cells of cattle, **pigs** and guinea-**pigs**. The serological groups studied were pomona, grippotyphosa, hebdomadis and tarassovi originating from **pigs**, cattle or rodents, and also the saprophytic group semaranga. Leptospires of the grippotyphosa serogroup showed the greatest cytopathic effect (CPE) against bovine cells, and changes in the cell nuclei occurred three times more quickly than in control

cell cultures. The pomona and tarassovi serogroups were most active against **porcine** cells, and pomona and grippotyphosa against guinea-**pig** cells. L. osetica of the tarassovi serogroup also caused nuclear changes in guinea-**pig** cells 31/2 times more quickly than control cell changes. Saprophytic leptospires showed no CPE.

L18 ANSWER 26 OF 32 MEDLINE
ACCESSION NUMBER: 76060805 MEDLINE
DOCUMENT NUMBER: 76060805
TITLE: [Detection of **pathogenic leptospira** in the waste water and sewage sludge of large **pig** breeding sites].
Uber den Nachweis von pathogenen Leptospiren in den Abwassern und im Klarschlamm von Schweinegrossanlagen.
AUTHOR: Minzat R M; Tomescu V
SOURCE: ARCHIV FUR EXPERIMENTELLE VETERINARMEDIZIN, (1975) 29 (4) 557-62.
Journal code: 70I. ISSN: 0003-9055.
PUB. COUNTRY: GERMANY, EAST: German Democratic Republic
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: German
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197603
AB Sewage effluent and sludge from the purification plant of 8 large piggeries was examined for the presence of pathogenic leptospires. By using the methods of Appelman and Van Thiel it was found that 43.1% of samples of effluent were contaminated with L. pomona and O. tarassovi. Altogether 33 strains of pomona and three mixed cultures of pomona and tarassovi were obtained. The isolated strains were shown to be pathogenic by experimental infection of guinea-pigs, rabbits and pregnant and non-pregnant sows. The average period of survival of pathogenic leptospires in sewage effluent was 24 to 48 hours, with a maximum of 96 hours. Leptospires were killed within 24 hours in decanted sludge, owing to its strong acidity.

L18 ANSWER 27 OF 32 MEDLINE
ACCESSION NUMBER: 76028290 MEDLINE
DOCUMENT NUMBER: 76028290
TITLE: Intracutaneous infection with Leptospira icterohaemorrhagiae (Shibaura strain) of the guinea pig.
AUTHOR: Mori M; Arimitsu Y; Otani S; Akama K
SOURCE: JAPANESE JOURNAL OF MEDICAL SCIENCE AND BIOLOGY, (1974 Dec) 27 (6) 297-308.
Journal code: KLZ. ISSN: 0021-5112.
PUB. COUNTRY: Japan
Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197602

AB Experimental leptospirosis with **Leptospira** icterohaemorrhagiae Shibaura strain was studied in guinea **pigs**. When the **pathogen** was inoculated intracutaneously to the back of the animals, localized haemorrhage was observed at the inoculated site before the appearance of general haemorrhage. The severity of the local lesion increased progressively until the 7th day of inoculation. The minimum infective dose (MID) or the 50% infective dose (ID50) of the leptospiral suspension was determined by the appearance of the macroscopic local haemorrhage 7 days after inoculation. The MID thus determined was almost comparable with the value determined by the development of general symptoms and signs by conventional ip inoculation. The number of the pathogen per ID50 varied between 6 and 35 in five experiments. The local haemorrhage was effectively protected by active or passive immunization. Microscopically, haemorrhage at the inoculated site was found mainly in the dermis, directly beneath the epidermis in particular, and accompanied with leakage of the pathogen. The pathogen was also detected abunduntly in the thickened epidermal layer covering the inoculated area as well as in the epithelial matrix of hair-follicle, probably due to the proliferation of the pathogen at the site.

L18 ANSWER 28 OF 32 CABA COPYRIGHT 2000 CABI
ACCESSION NUMBER: 75:109032 CABA
DOCUMENT NUMBER: 742282493
TITLE: Swine leptospirosis in Argentina
AUTHOR: Myers, D. M.; Potenza, J. E.; Cotrino, V. B.
CORPORATE SOURCE: Pan American Zoonoses Center, Ramos Mejia, Buenos Aires, Argentina.
SOURCE: Revista de la Asociacion Argentina de Microbiologia, (1973) Vol. 5, No. 1, pp. 7.
DOCUMENT TYPE: Miscellaneous
LANGUAGE: English
SUMMARY LANGUAGE: Spanish

AB One hundred and thirty kidneys collected from apparently normal slaughtered **pigs** over a 3 year period resulted in 70 Leptospira isolations. The isolates were identified as tarassovi, pomona and canicola serotypes. Randomly selected sera from 192 animals demonstrated a high percentage of reactors to tarassovi (63.5%), pomona (64.0%) and to a lesser degree to 10 other **Leptospira** serotypes. This study confirms that **swine** are important hosts of **pathogenic leptospiras** and that this animal species should be given preferential attention in epidemiological studies and control activities.

L18 ANSWER 29 OF 32 EMBASE COPYRIGHT 2000 ELSEVIER SCI. B.V.

ACCESSION NUMBER: 74113140 EMBASE
DOCUMENT NUMBER: 1974113140
TITLE: Pathogenic leptospira isolated from toad kidneys.
AUTHOR: Babudieri B.; Carlos E.R.; Carlos Jr E.T.
CORPORATE SOURCE: Inst. Sup. San., Lab. Microbiol., WHO/FAO Leptospira Ref. Lab., Rome, Italy
SOURCE: Tropical and Geographical Medicine, (1973) 25/3 (297-299).
CODEN: TGMEAJ
DOCUMENT TYPE: Journal
FILE SEGMENT: 004 Microbiology
LANGUAGE: English
AB Leptospira were isolated from the kidney of a toad, Bufo marinus, in the Philippines, showing the cultural characteristics peculiar to **pathogenic leptospirae**. It was proven to infect guinea **pigs** and hamsters. This **Leptospira** presents antigenic characteristics different from those of all serotypes of **pathogenic leptospirae** so far. For the serogroup and for the serotype to which this leptospira is attributed, respectively the names 'bufonis' and 'Carlos' are suggested.

L18 ANSWER 30 OF 32 MEDLINE
ACCESSION NUMBER: 70032333 MEDLINE
DOCUMENT NUMBER: 70032333
TITLE: [**Swine** as a source of **pathogenic leptospira**].
Svin'i--istochnik patogennykh leptospir.
AUTHOR: Iurkov G G; Andriian E A
SOURCE: VETERINARIIA, (1968 Aug) 45 (8) 35-7.
Journal code: XCC. ISSN: 0042-4846.
PUB. COUNTRY: USSR
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Russian
ENTRY MONTH: 197002

L18 ANSWER 31 OF 32 MEDLINE
ACCESSION NUMBER: 58030750 MEDLINE
DOCUMENT NUMBER: 58030750
TITLE: [**Pathogenic** action of a Portuguese strain of **Leptospira** pomona in **pigs**].
Accao patogenica sobre os porcos da estirpe portuguesa de Leptospira pomona.
AUTHOR: AZEVEDO JF D E; FARO M M; PALMEIRO M M
SOURCE: An. Inst. med. trop., Lisb, (1956 Dec) 13 (4) 563-8.
LANGUAGE: Russian
FILE SEGMENT: OLDMEDLINE
OTHER SOURCE: CLML5833-31054-289
ENTRY MONTH: 195812

L18 ANSWER 32 OF 32 VETB COPYRIGHT 2000 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1968-61544 M
TITLE: **PIGS** AS A NATURAL SOURCE OF **PATHOGENIC LEPTOSPIRAE.**
AUTHOR: YURKOV G G; ANDRIYAN E A
LOCATION: MOSCOW,USSR.
SOURCE: VETERINARIYA

(FILE 'MEDLINE' ENTERED AT 11:17:19 ON 18 SEP 2000)

L19	1730	SEA	FILE=MEDLINE ABB=ON	PLU=ON	LEPTOSPIRA/CT
L20	101926	SEA	FILE=MEDLINE ABB=ON	PLU=ON	SWINE/CT
L21	164	SEA	FILE=MEDLINE ABB=ON	PLU=ON	L19 AND L20
L24	55635	SEA	FILE=MEDLINE ABB=ON	PLU=ON	PATHOGENICITY/CT
L25	15	SEA	FILE=MEDLINE ABB=ON	PLU=ON	L21 AND L24

=> d 1-15 .beverlymed

L25 ANSWER 1 OF 15 MEDLINE
AN 1999187636 MEDLINE
TI Leptospirosis.
AU Bradley K K
SO JOURNAL - OKLAHOMA STATE MEDICAL ASSOCIATION, (1999 Mar) 92 (3) 114-5. Ref: 4
Journal code: JH3. ISSN: 0030-1876.

L25 ANSWER 2 OF 15 MEDLINE
AN 95171241 MEDLINE
TI Rapid and specific detection of pathogenic Leptospira species by amplification of ribosomal sequences.
AU Wagenaar J A; Segers R P; Van der Zeijst B A
SO MOLECULAR BIOTECHNOLOGY, (1994 Aug) 2 (1) 1-14.
Journal code: B97. ISSN: 1073-6085.
AB We have developed an assay for the detection of pathogenic Leptospira that is based on the polymerase chain reaction. With the combination of agarose gel electrophoresis and blotting, pathogenic Leptospira can be discriminated specifically from nonpathogenic Leptospira and other bacterial species. This method, based on the amplification of 16S ribosomal RNA sequences, is able to detect 10 leptospiral cells/mL in cattle urine samples and 100 leptospiral cells/mL in pig urine samples. Using this assay leptospires were detected in urine samples from cattle that were experimentally infected with Leptospira interrogans serovar hardjo type hardjobovis.

L25 ANSWER 3 OF 15 MEDLINE
AN 90170110 MEDLINE
TI In vitro association of leptospires with host cells.
AU Thomas D D; Higbie L M

SO INFECTION AND IMMUNITY, (1990 Mar) 58 (3) 581-5.
Journal code: GO7. ISSN: 0019-9567.

AB Interactions of Leptospira interrogans with cultured endothelial and kidney epithelial cells were assayed by examining (i) cytoadherence of intrinsically radiolabeled leptospires to eucaryotic cell monolayers and (ii) penetration of leptospires through cell monolayers grown on polycarbonate filters in chemotaxis chambers. L. interrogans serovars attached to cultured cells in a dose- and time-dependent manner. Adherence was diminished following pretreatment of organisms with proteases, rabbit immune serum, or heat. When observed by scanning electron microscopy, most leptospires attached by both ends, rather than just one tip like Treponema pallidum. In penetration assays, 9.7% of added L. interrogans migrated through the monolayer-filter barrier, while only 0.3% of L. biflexa penetrated in the same time interval. Transmission electron microscopy revealed that organisms entered the host cell cytoplasm. These in vitro results indicate that leptospires have an invasive capacity that may be related to pathogenicity in vivo and suggest that further investigation of interactions with host cells may enhance knowledge of leptospiral virulence.

L25 ANSWER 4 OF 15 MEDLINE
AN 86153494 MEDLINE
TI Prevalence of Leptospira infection in aborted pigs in Northern Ireland.
AU Ellis W A; McParland P J; Bryson D G; Cassells J A
SO VETERINARY RECORD, (1986 Jan 18) 118 (3) 63-5.
Journal code: XBS. ISSN: 0042-4900.
AB During an investigation of pig abortions and stillbirths in Northern Ireland, leptospires were isolated from 55 of the 78 litters examined. Strains belonging to four serogroups (Australis, Icterohaemorrhagiae, Hebdomadis and Autumnalis) were recovered but leptospires of the Australis serogroup accounted for 91 per cent of the isolates. Two serovars of the Australis group bratislava and muenchen, were identified.

L25 ANSWER 5 OF 15 MEDLINE
AN 84030245 MEDLINE
TI Experimental infection with the virulent, Central-European, murine Leptospira pomona strain in the pig.
AU Sebek Z; Treml F; Valova M
SO FOLIA PARASITOLOGICA, (1983) 30 (3) 269-75.
Journal code: F2T. ISSN: 0015-5683.
AB The virulent, murine Leptospira pomona strain isolated from Apodemus agrarius was used in an experimental infection of six pigs aged 4--5 months. The clinical course of the infection was inapparent, both the blood picture and the uptake of food were normal. All infected pigs produced antibodies against L. pomona at titres from 1:3 200 to

1:50 000. The reisolation of leptospires from the blood of the infected pigs was successful in one case only, and that on day two p.i. Throughout the course of our experiment, no microscopic evidence was obtained of the presence of leptospires in the blood of the infected animals. Of the six guinea pigs injected repeatedly with the urine of the infected pigs, antibodies against L. pomona were detected in two of these at titres 1:3 200 and 1:6 400. However, no direct proof was obtained of leptospires in their kidneys. Leptospires were isolated from the kidneys of two of the infected pigs, at days 10 and 21 p.i. respectively. As suggested by our results, the Central European, murine Leptospira pomona strain should be regarded as an independent biovar incapable of causing a long-term leptospiruria and, hence, apparently unable to result in an epizooty in intensive pig husbandry. According to experimental evidence, Mus musculus can be a potential reservoir of the murine L. pomona biovar in Central Europe.

L25 ANSWER 6 OF 15 MEDLINE
AN 82070510 MEDLINE
TI Study on avirulent Leptospira pomona live vaccine in swine (author's transl).
AU Wang S Q; Zhang R Z; Li Z H; Liu Y M; Tan M W; Zhang J S; Yang B J
SO CHUNG-KUO I HSUEH KO HSUEH YUAN HSUEH PAO ACTA ACADEMIAE MEDICINAE SINICAE, (1979 Sep) 1 (1) 87-92.
Journal code: CZS.

L25 ANSWER 7 OF 15 MEDLINE
AN 76060805 MEDLINE
TI [Detection of pathogenic leptospira in the waste water and sewage sludge of large pig breeding sites].
Uber den Nachweis von pathogenen Leptospiren in den Abwassern und im Klarschlamm von Schweinegrossanlagen.
AU Minzat R M; Tomescu V
SO ARCHIV FUR EXPERIMENTELLE VETERINARMEDIZIN, (1975) 29 (4) 557-62.
Journal code: 70I. ISSN: 0003-9055.
AB Sewage effluent and sludge from the purification plant of 8 large piggeries was examined for the presence of pathogenic leptospires. By using the methods of Appelman and Van Thiel it was found that 43.1% of samples of effluent were contaminated with L. pomona and O. tarassovi. Altogether 33 strains of pomona and three mixed cultures of pomona and tarassovi were obtained. The isolated strains were shown to be pathogenic by experimental infection of guinea-pigs, rabbits and pregnant and non-pregnant sows. The average period of survival of pathogenic leptospires in sewage effluent was 24 to 48 hours, with a maximum of 96 hours. Leptospires were killed within 24 hours in decanted sludge, owing to its strong acidity.

L25 ANSWER 8 OF 15 MEDLINE
AN 75003050 MEDLINE

TI [Leptospira virulence depending on the storage time under laboratory conditions].
Virulentnost' leptospir v zavisimosti ot srokov khraneniia v laboratornykh usloviiakh.
AU Anan'ina IuV; Zaitsev S V
SO ZHURNAL MIKROBIOLOGII, EPIDEMIOLOGII I IMMUNOBIOLOGII, (1974 Jun) 51 (6) 132-3.
Journal code: Y9O.

L25 ANSWER 9 OF 15 MEDLINE
AN 74081529 MEDLINE
TI A preliminary report on potentially pathogenic microbiological agents recently isolated from pinnipeds.
AU Smith A W; Prato C M; Gilmartin W G; Brown R J; Keyes M C
SO JOURNAL OF WILDLIFE DISEASES, (1974 Jan) 10 (1) 54-9.
Journal code: KEM. ISSN: 0090-3558.

L25 ANSWER 10 OF 15 MEDLINE
AN 74057076 MEDLINE
TI Growth temperatures, virulence, survival, and nutrition of leptospires.
AU Ellinghausen H C Jr
SO JOURNAL OF MEDICAL MICROBIOLOGY, (1973 Nov) 6 (4) 487-97.
Journal code: J2N. ISSN: 0022-2615.

L25 ANSWER 11 OF 15 MEDLINE
AN 71240416 MEDLINE
TI Virulent and avirulent Leptospires: biochemical activities and survival in blood.
AU Stalheim O H
SO AMERICAN JOURNAL OF VETERINARY RESEARCH, (1971 Jun) 32 (6) 843-9.
Journal code: 40C. ISSN: 0002-9645.

L25 ANSWER 12 OF 15 MEDLINE
AN 71017607 MEDLINE
TI Action of leptospiral lipases on purified serum lipoproteins.
AU Chorvath B; Fried M
SO FOLIA MICROBIOLOGICA, (1970) 15 (4) 303-8.
Journal code: F23. ISSN: 0015-5632.

L25 ANSWER 13 OF 15 MEDLINE
AN 68088008 MEDLINE
TI [Immunobiological relationships between pathogenic and saprophytic leptospiras].
Relatii imunobiologice intre leptospirele patogene si cele saprofite.
AU Bejenaru C; Burduja A; Sirmon E; Decus V; Pavel S; Antohi D
SO REVISTA MEDICO-CHIRURGICALA A SOCIETATII DE MEDICI SI NATURALISTI DIN IASI, (1967 Jul-Sep) 71 (3) 657-63.

Journal code: SHP. ISSN: 0300-8738.

L25 ANSWER 14 OF 15 MEDLINE
AN 67049821 MEDLINE
TI Leptospiral selection, growth, and virulence in synthetic medium.
AU Stalheim O H
SO JOURNAL OF BACTERIOLOGY, (1966 Oct) 92 (4) 946-51.
Journal code: HH3. ISSN: 0021-9193.

L25 ANSWER 15 OF 15 MEDLINE
AN 66013552 MEDLINE
TI [Pathogenic properties of Leptospira diverticuli].
Uber die pathogenen Eigenschaften der Leptospira diverticuli.
AU Gelev I
SO ZENTRALBLATT FUR BAKTERIOLOGIE, PARASITENKUNDE, INFEKTIONSKRANKHEITEN UND HYGIENE. 1. ABT. MEDIZINISCH-HYGIENISCHE BAKTERIOLOGIE, VIRUSFORSCHUNG UND PARASITOLOGIE. ORIGINALE, (1964 Nov) 194 (3) 374-8.
Journal code: Y4Y.

(FILE 'CAPLUS, MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO, CABA, AGRICOLA, VETU, VETB' ENTERED AT 11:20:18 ON 18 SEP 2000)

L26 19 S L1 AND CHAPPEL R?/AU — Author
L27 7 DUP REM L26 (12 DUPLICATES REMOVED)

L27 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2000 ACS DUPLICATE 1
ACCESSION NUMBER: 1998:621133 CAPLUS
DOCUMENT NUMBER: 129:242431
TITLE: New isolates of Leptospira, antigens derived from them and vaccines
INVENTOR(S): **Chappel, Roderick J.**
PATENT ASSIGNEE(S): Agriculture Victoria Services Pty. Ltd., Australia; Pig Research and Development Corp.
SOURCE: PCT Int. Appl., 95 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9840099	A1	19980917	WO 1998-AU145	19980306

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG,

Searcher : Shears 308-4994

KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

AU 9860837	A1	19980929	AU 1998-60837	19980306
PRIORITY APPLN. INFO.:			AU 1997-5494	19970307
			WO 1998-AU145	19980306

AB Novel isolates of the spirochaete Leptospira and antigens derived from them that can be used in the diagnosis and prophylaxis of disease are described. More particularly, the present invention is directed to a new serovar of Leptospira designated as serovar **hurstbridge** or serogroup **Hurstbridge** or L. fainei. The bacteria were isolated from pigs at slaughterhouses in Australia. The new isolate is a member of the **pathogenic** grouping of **Leptospira** but is distinct from known serovars. It is most similar to the lyme serovar of L. inadai.

L27 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2000 ACS DUPLICATE 2

ACCESSION NUMBER:	1998:620335 CAPLUS
DOCUMENT NUMBER:	129:341501
TITLE:	Leptospira fainei sp. nov., isolated from pigs in Australia
AUTHOR(S):	Perolat, P.; **Chappel, R. J.**; Adler, B.; Baranton, G.; Bulach, D. M.; Billinghurst, M. L.; Letocart, M.; Merien, F.; Serrano, M. S.
CORPORATE SOURCE:	Leptospira Laboratory, Institut Pasteur, Noumea, New Caledonia
SOURCE:	Int. J. Syst. Bacteriol. (1998), 48(3), 851-858 CODEN: IJSBA8; ISSN: 0020-7713
PUBLISHER:	Society for General Microbiology
DOCUMENT TYPE:	Journal
LANGUAGE:	English

AB **Pathogenic leptospires** can be causative agents of reproductive problems in pigs. Cultures of uteri and kidneys from two pig herds in New South Wales and Victoria (Australia) yielded five strains identified as Leptospira on morphol. and cultural grounds. Phenotypic characteristics (growth at 13 and 30.degree.C, growth in the presence of 8-azaguanine) were intermediate between those of **pathogenic** and saprophytic **leptospires**. No cross-agglutination was obsd. with ref. antisera representing the 24 pathogenic serogroups and the main saprophytic ones. Antiserum against one of the strains did not agglutinate ref. strains representative of any serogroup. This provided evidence of a new serovar, designated **hurstbridge** . Genomic characterization of the five strains was achieved using five mol. approaches. Mapped restriction site polymorphisms in the rrs (16S rRNA) gene were not related to those of any ref. strains. Arbitrarily primed PCR fingerprints suggested clonality of the five strains. The strains all showed an identical and unique PFGE

profile. PCR, using primers specific for the rrs gene of **pathogenic leptospires**, amplified corresponding sequences from the strains. DNA-DNA hybridization (and reciprocal expts.) using the S1 nuclease/TCA method was performed between one of the strains and the ref. strains of Leptospira species. The homol. ranged from 0 to 36% (the latter being with Leptospira inadai) thus satisfying the criterion of a new species, Leptospira fainei (type strain BUT 6T). Phylogenetic anal. of 16S rRNA sequences showed that L. fainei and L. inadai formed a clade sep. from the previously recognized "saprophyte" and "pathogen" clades.

L27 ANSWER 3 OF 7 MEDLINE DUPLICATE 3
ACCESSION NUMBER: 1999041148 MEDLINE
DOCUMENT NUMBER: 99041148
TITLE: Serological titres to Leptospira fainei serovar **hurstbridge** in human sera in Australia.
AUTHOR: **Chappel R J**; Khalik D A; Adler B; Bulach D M; Faine S; Perolat P; Vallance V
CORPORATE SOURCE: Agriculture Victoria, Victorian Institute of Animal Science, Attwood, Australia.
SOURCE: EPIDEMIOLOGY AND INFECTION, (1998 Oct) 121 (2) 473-5. Journal code: EPI. ISSN: 0950-2688.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199902
ENTRY WEEK: 19990204
AB A set of 723 diagnostic sera from human patients, submitted for the microscopic agglutination test (MAT) for antibodies to a group of 6 leptospiral serovars, was also tested by MAT for antibodies to the recently-discovered Leptospira fainei serovar **hurstbridge**. MAT titres of > or = 128 to serovar **hurstbridge** were detected in 13.4% of these sera, and titres of > or = 512 in 7.2%. In contrast, none of 62 sera obtained from a control population of laboratory staff gave titres of > or = 128. The difference between the number of titres of > or = 128 given by the two groups of sera was highly significant ($P < 0.01$). The titres observed may have been due to cross-reactions with other leptospiral serovars, but this could not be demonstrated. An alternative explanation is that serovar **hurstbridge** is present in the human population.

L27 ANSWER 4 OF 7 BIOSIS COPYRIGHT 2000 BIOSIS
ACCESSION NUMBER: 1998:481472 BIOSIS
DOCUMENT NUMBER: PREV199800481472
TITLE: Prevalence and geographic origin of pigs with serological evidence of infection with Leptospira interrogans serovar pomona slaughtered in abattoirs in Victoria, Australia.

AUTHOR(S): **Chappel, R. J. (1)**; Prime, R. W.; Millar, B. D.; Jones, R. T.; Cutler, R. S.; Adler, B.

CORPORATE SOURCE: (1) Dep. Nat. Resour. Environ., Victorian Inst. Anim. Sci., Attwood, VIC 3049 Australia

SOURCE: Veterinary Microbiology, (July, 1998) Vol. 62, No. 3, pp. 235-242.
ISSN: 0378-1135.

DOCUMENT TYPE: Article

LANGUAGE: English

AB A set of 10 440 sera was collected from pigs slaughtered at Victorian abattoirs. These sera were subjected to the microscopic agglutination test for antibodies to Leptospira interrogans serovar pomona. Identification of the herd of origin was possible for 6511 pigs, and these were derived from 167 herds in Victoria (84% of sera), from 32 herds in New South Wales (8% of sera) and 29 herds in South Australia (8% of sera). The overall prevalence of titres of 512 and above was 3.7%. This was higher (5.3%) among pigs for which the property of origin was unknown than among pigs with identified properties of origin. Among the latter the prevalence was 2.7% (Victoria 0.6%, New South Wales 1.3%, South Australia 25.2%.) Most of the pigs with unknown properties of origin were derived from market groups and were probably typically from smaller herds. Within Victoria a comparison of results with the known pig populations of the 12 statistical divisions indicated that infection was spread throughout the State. Of the 228 identified herds of origin sampled, 32 (14%) had at least one pig with a high titre. However, this may underestimate the proportion of infected herds, as in many cases only a few serum samples were obtained. Of 73 herds from which 25 or more serum samples were obtained, serological evidence of infection was obtained in 18 herds (25%).

L27 ANSWER 5 OF 7 BIOSIS COPYRIGHT 2000 BIOSIS

ACCESSION NUMBER: 1990:156675 BIOSIS

DOCUMENT NUMBER: BA89:84093

TITLE: LEPTOSPIRA-INTERROGANS SEROVAR HARDJO IS NOT A MAJOR CAUSE OF BOVINE ABORTION IN VICTORIA AUSTRALIA.

AUTHOR(S): **CHAPPEL R J**; MILLAR B D; ADLER B; HILL J; JEFFERS M J; JONES R T; MCCAUGHAN C J; MEAD L J; SKILBECK N W

CORPORATE SOURCE: DEP. AGRIC. RURAL AFFAIRS, VET. RES. INST. ATTWOOD AND PARKVILLE, MICKLEHAM ROAD, ATTWOOD, VICTORIA 3049, AUSTR.

SOURCE: AUST VET J, (1990) 66 (10), 330-333.
CODEN: AUVJA2. ISSN: 0005-0423.

FILE SEGMENT: BA; OLD

LANGUAGE: English

AB The aim of this study was to determine whether evidence could be obtained of foetal infection with **Leptospira** interogans serovar hardjo in aborted foetuses collected from diary farms.

Material from 197 abortions occurring over a wide area of Victoria was collected over 3 years. None of 195 foetal kidney cultures or 7 cultures from membranes was positive for **leptospiral** organisms. Immunogold silver staining for **leptospires** was performed on sections of kidneys, lungs or heart from 156 foetuses, with negative results. Evidence of transient **leptospiral** infection in 11 of 123 foetuses was obtained by foetal heart blood serology. Two isolates of L. interrogans serovar hardjo were obtained from the urine of milking cows. These strains were examined by restriction endonuclease analysis and both were shown to be of the genotype Hardjobovis, as have been all Australian isolates studied so far. It appears that foetal infection was serovar hardjo is not associated with any substantial proportion of bovine abortions in Victoria, in contrast to the situation in Northern Ireland. The apparent absence from Victoria of the **pathogenic** genotype hardjoprajitno is a possible explanation.

L27 ANSWER 6 OF 7 MEDLINE DUPLICATE 4
ACCESSION NUMBER: 90056139 MEDLINE
DOCUMENT NUMBER: 90056139
TITLE: Leptospira interrogans serovar hardjo is not a major cause of bovine abortion in Victoria.
AUTHOR: **Chappel R J**; Millar B D; Adler B; Hill J; Jeffers M J; Jones R T; McCaughan C J; Mead L J; Skilbeck N W
CORPORATE SOURCE: Department of Agriculture and Rural Affairs, Veterinary Research Institute Attwood and Parkville, Victoria..
SOURCE: AUSTRALIAN VETERINARY JOURNAL, (1989 Oct) 66 (10) 330-3.
Journal code: 9IE. ISSN: 0005-0423.
PUB. COUNTRY: Australia
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199002
AB The aim of this study was to determine whether evidence could be obtained of foetal infection with **Leptospira** interrogans serovar hardjo in aborted foetuses collected from dairy farms. Material from 197 abortions occurring over a wide area of Victoria was collected over 3 years. None of 195 foetal kidney cultures or 7 cultures from membranes was positive for **leptospiral** organisms. Immunogold silver staining for **leptospires** was performed on sections of kidneys, lungs or heart from 156 foetuses, with negative results. Evidence of transient **leptospiral** infection in 11 of 123 foetuses was obtained by foetal heart blood serology. Two isolates of L. interrogans serovar hardjo were obtained from the urine of milking cows. These strains were examined

by restriction endonuclease analysis and both were shown to be of the genotype Hardjobovis, as have been all Australian isolates studied so far. It appears that foetal infection with serovar hardjo is not associated with any substantial proportion of bovine abortions in Victoria, in contrast to the situation in Northern Ireland. The apparent absence from Victoria of the **pathogenic** genotype Hardjoprajitno is a possible explanation.

L27 ANSWER 7 OF 7 MEDLINE DUPLICATE 5
ACCESSION NUMBER: 88146529 MEDLINE
DOCUMENT NUMBER: 88146529
TITLE: Detection of leptospires in biological fluids using DNA hybridisation.
AUTHOR: Millar B D; **Chappel R J**; Adler B
CORPORATE SOURCE: Department of Agriculture and Rural Affairs, Bendigo Regional Veterinary Laboratory, Vic., Australia..
SOURCE: VETERINARY MICROBIOLOGY, (1987 Oct) 15 (1-2) 71-8. Journal code: XBW. ISSN: 0378-1135.
PUB. COUNTRY: Netherlands
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198806
AB DNA extracted from **Leptospira** interrogans serovar pomona was labelled with phosphorus-32 by nick translation and used as a genomic probe to detect **leptospiral** DNA. The sensitivity of detection in a 10-microliter spot on nylon membranes was 160 pg of **leptospiral** DNA or 1.1 X 10(3) **leptospires** and assays with nylon membranes were somewhat more sensitive than assays with nitrocellulose membranes. The probe reacted with the **pathogenic** hardjo and tarassovi **leptospiral** serovars, but not with other genera of bacteria. To detect **leptospires** in body fluids, these were treated to free **leptospiral** DNA and then concentrated on membranes using a Bio-Dot apparatus. Neither serum nor urine interfered with the assay system. The DNA of **leptospires** added to pig urine was stable for at least 2 h at room temperature and for at least 20 h at -20 degrees C.

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